Soldier, Civilian, Student:

Understanding the Relationship between Gender, Engagement, and Self-Identity of College Student Veterans

Dissertation

By

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SOLDIER, CIVILIAN, STUDENT: UNDERSTANDING THE RELATIONSHIP BETWEEN GENDER, ENGAGEMENT, AND SELF-IDENTITY OF COLLEGE STUDENT VETERANS

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Abstract

Student engagement is a recognized factor within higher education when understanding student satisfaction, retention, and persistence. The National Survey of Student Engagement (NSSE) has been used across the nation since 2000 to measure the engagement behaviors of first year and fourth year students at four-year institutions. The results of the study provide context for campuses to adapt their policies and practices to continue to support their students as well as providing a national baseline for the student experience.

The purpose of this study was to explore the engagement behaviors of fourth year student veterans to determine if gender or any of the five benchmarks of engagement from the NSSE: level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment predict the self-reported growth in the self-identity. The benchmarks and gender were regressed against the self-reported outcome of understanding yourself. Results indicated that gender was significant and that for male veterans academic challenge, student-faculty interaction, and a supportive campus environment were predictors of growth of self-identity. The results also indicated that for women veterans academic challenge, enriching educational experiences, and a supportive campus environment were predictors of growth of self-identity. Neither group showed that active and collaborative learning predicts growth of self-identity. On average, women veterans reported having a higher sense of self than their male veteran peers within the 2012 NSSE sample.

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Table of Contents

List of Figures

List of Tables

Chapter One

Introduction

Statement of the Problem

On August 1, 2009, Congress passed the Post 9/11 GI Bill, which provided educational benefits to veterans who had served more than 90 days in the military after September 10, 2001 (U.S. Department of Veterans Affairs, 2016). With the implementation of this bill, millions of veterans became eligible to receive tuition benefits up to one hundred percent of their semester tuition costs. Between its inception in August 2009 and November 2013, the Department of Veterans Affairs has awarded one million service members or their dependents education benefits (Office of Public and Intergovernmental Affairs, 2013). The overall number of individuals taking advantage of the Post 9/11 GI Bill educational benefits is over 1 million cumulatively; the number of veterans annually receiving benefits jumped from 34,393 individuals in 2009 to 754,229 individuals in 2013 (US Department of Veterans Affairs, 2013). Of the approximate 2.5 million veterans who are eligible for the Post 9/11 GI Bill based on service from October 2001 to March 2013, approximately 450,000, or 18%, are women (Risen, 2014; U.S. Department of Veterans Affairs, 2013). The Post 9/11 GI Bill has greater educational benefits than the previous Montgomery GI Bill, which is one cause for the increase in student veterans accessing higher education since 2009 (Rumann & Hamrick, 2009; Veteran Success Jam, 2010).

Within the veteran student population, women veterans are returning to higher education institutions at a significantly higher rate when compared to their male peers (Deming, Golden, & Katz, 2012). Women veterans comprise approximately 18 percent of the military population, but account for approximately 27 percent of the student veteran population (Deming, Golden, &

Katz, 2012). These numbers are predicted to increase over the next ten years, as more women choose to participate in military service (Deming, Golden, & Katz, 2012). As women's roles have changed and increased within the military the research on female veterans has expanded because of immediate needs to understanding their experiences in terms of physical and mental health, military integration, and social adjustment (Bachold & De Sawal, 2009; Carlson, Stromwall & Lietz, 2013; Mattocks, Haskell, Krebs, Justice, Yano, & Brandt, 2012 O'Herrin, 2011).

Despite the need for research on veterans, there is a scarcity of existing literature on how student veterans engage and interact on college campuses. Most studies group student veterans with non-traditional students because the majority of student veterans are over the age of 24 when they return to college. The experiences that veterans have on campus may not be the same as their civilian non-traditional aged peers because of their military service. For instance, historians such as Helen Horowitz (1988) tend to characterize World War II veterans as separate and uninterested in engaging in the typical campus life. However, because recent research has shown student engagement to be a critical component of student success in college (e.g., Koljatic & Kuh, 2001; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2011; Kuh 2005; Quaye & Harper, 2014; Wolf-Wendel, Ward, & Kinzie, 2009), it is important to address this gap in the literature and understand more about how veterans engage on college campuses. Engagement is looking at how students are interacting academically and socially with other students, faculty, and staff within the campus (Kuh, 2005; Wolf-Wendel, Ward, & Kinzie, 2009). This study uses the literature that currently exists on student engagement to explore how engagement is related to student veterans' sense of self. Exploring veterans' engagement addresses institutions' practical needs to understand how to better serve veterans and retain them through graduation. This study

addresses this gap in the literature on veterans' engagement in higher education, which is important because the population of veterans continues to increase on college and university campuses.

Purpose of the Study

The purpose of this study is to explore the engagement of fourth year student veterans at four-year higher education institutions, with specific emphasis on the female veteran experience. More specifically, this study seeks to predict whether the engagement patterns of veterans is related to their understanding of self at the end of their college experience. Engagement has commonly be measured by the utilization of the National Survey for Student Engagement (NSSE), which has created five engagement benchmarks to assist institutions in determining where additional support can be invested to support student success. The five benchmarks are academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment (NSSE, 2012). Veterans, for the purposes of this study, are defined as active duty, reserve or National Guard troops, separated service members, and retired military members.

College is intended to be a formative experience for students, shaping their understanding of self, their community, and perceptions of the world (King & Kitchener, 1993; Pascarella & Terenzini, 2005). Veterans, however, are starting college after having already participated in a formative experience – their military service – which could mean that they may find the college environment to be less influential on their understanding of self compared to civilian students (DiRamio, Ackerman, & Mitchell, 2008; Vacchi, 2012). The military experience is regimented and structured, targeted at creating a formative sense of shared identity and understanding of cultural norms. The lives of one's unit depend upon the shared sense of mission and identity.

The formative military experience begins during basic training, when service members are stripped of their unique identifiers and given a common identity of soldier (Hall, 2011). For female service members, their experience during this transitional experience might includes pushing aside the social gender norms they were raised with to prove that they are "worthy" of participating within the masculine warrior culture of the military (Dunivan, 1994; Hall, 2011). Navigating the cultural nuances of the hyper-masculine military can cause women service members to feel isolated, unworthy, and inferior to their male counterparts while transitioning into their service (Dunivan, 1994; Hall, 2011). These feelings can shape the rest of their experience within the military along with their self-identity (Suris & Lind, 2008). Because male and female veterans may leave the military with different levels of self-identity and associations with the military, they may also differ in terms of how engaged they are in college, which also influences their understanding of self.

Research Questions

The primary focus of this study is to explore the role that the five engagement benchmarks defined by the National Survey of Student Engagement have upon veteran students' perception of self-identity, specifically female veterans, at four-year institutions in the United States. The questions guiding this study are:

1. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict veteran students' self-assessed contribution to their understanding of self?
2. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?

3. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

One of the outcomes of a successful college experience is to have individuals leaving the institution with a greater understanding of self than they entered with (Quaye & Harper, 2015). Having a strong sense of self or identity is reflective of a well-developed individual that can be a contributing member of society (Quaye & Harper, 2015). Academic and social engagement within the institution provide opportunities for personal reflection and growth through the sharing of alternative ideas, experiences, and viewpoints. Participating in these institutional engagement opportunities can provide occasions to strengthen a students' understanding of self (Baxter Magolda, 2003; Quaye & Harper, 2015). To continue to enhance their understanding of self, student veterans may need to engage within the college community socially not just academically. Veterans, however, may not be doing so because they feel disconnected with their peers, perceive their campus environment as hostile, or do not see the value of attempting to reintegrate into another community after having integrated into the military (DiRamio, Ackerman, & Mitchell, 2008).

Engagement has been found to be one of the contributors of student success (Kuh 2005; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2011; Wolf-Wendel, Ward, & Kinzie, 2009). Assuming that engagement is also a correlate of success for veterans, it is important to understand how and to what extent veterans engage in college as engagement can shape a student's understanding of self. Recognizing the additional dimensions that female veterans face beyond that of male veterans, such as a lack of personal support and connection with peers, creates a need to explore how female veteran college students are engaging with their campus

communities (Baechtold & DeSawal, 2009). An exploration into the engagement behaviors of student veterans, specifically female student veterans, can shape the high impact practices that can be implemented in the future to facilitate college success for female veterans.

Conceptual Framework

In higher education, student success is a multifaceted concept that expands beyond a student's academic preparation and motivation, to include a student's ability to engage with the academic and social community provided by the institution (Kuh et al., 2011; Pascarella & Terenzini, 2005). Student engagement is comprised of two elements. The first is the amount of time and energy that a student puts into activities, both academic and non-curricular, which contributes to the outcome of student success (Kuh et al., 2011; Wolf-Wendel, Ward, & Kinzie, 2009). The second component of engagement is the amount of energy that the institution spends on encouraging students to participate in these types of activities, both curricular and non-curricular (Kuh et al., 2011; Wolf-Wendel, Ward, & Kinzie, 2009). Little literature exists surrounding overall veteran students' retention and graduation rates, which presents a challenge in discerning a baseline for determining veteran student success in general. Understanding engagement behaviors of student veterans can support the implementation of targeted high impact practices and develop a statistical baseline for the veteran student experience, which can grow into greater investigations of student veteran retention and graduation rates.

The American Council of Education and the National Survey of Student Engagement (NSSE) explored in 2013 the engagement experience of student veterans compared to civilian students and found that these two student populations report having distinctive engagement experiences from one another, specifically in the feeling of support for success on campus and engagement in classwork versus college life (Cole & Kim, 2013). Student veterans report

spending more time preparing for classes as well as report being more likely to discuss grades or assignments with their faculty than their civilian student peers (Cole & Kim, 2013). These activities are focused upon the academic engagement, compared to the concept of engaging in the comprehensive college experience. Cole and Kim found that "student veterans/service members engaged in classwork, but not as much in college/university life" (2013, p. 8). It is postulated that the veteran's age along with additional external commitments are the reasons for their lack of engagement. With this lack of engagement may come limitations in the personal growth and development that veteran students are gaining from their college experience which can limit the outcomes that they experience at the end of their college career. Cole and Kim's study (2013) provided a foundational glimpse into understanding veteran students' engagement behaviors but does not expand to explore the role that gender plays in the ways veterans engage within their college experience, nor how engagement is related to student veterans' understanding of self when they leave higher education.

While engagement is one part of a successful college experience, another component is self-improvement and personal growth. By the time of graduation, a student should have a stronger understanding of themselves, or sense of self. Sense of self is the personal understanding that an individual has in their likes, dislikes, interests, and opinions (Ickes, Park, & Johnson, 2012). Individuals can have a weak or strong sense of self, which can impact how strongly a person maintains their perspective (Ickes, Park, & Johnson, 2012). The strength of one's sense of self relates to an individual's development of their personal identity (Ickes, Park, & Johnson, 2012). Marcia (1966) proposed that there are four levels of identity development: diffusion, foreclosure, moratorium, and achievement. Identity achievement is the highest level of identity development, where the greatest levels of maturity and stability are found (Ickes,

Park, & Johnson, 2012). Having a strong sense of self increases the likelihood of having a high level of identity development, which is a desired effect at the completion of a baccalaureate degree. Both sense of self and identity are often used interchangeably and commonly measured through self-assessment to determine strength as well as areas of growth. A student's perception of their sense of self may differ at the end of their undergraduate experience versus the beginning based upon a number of factors, including engagement.

At the end of a student's college students experience, students should have a strong sense of self and identity. Much of the literature focused on veteran students' states that they may not be engaging to get the "complete" college experience, expanding beyond academic engagement to include social engagement (DiRamio, Ackerman, & Mitchell, 2008; Vacchi, 2012. Consequently, they may not be finishing their college experience having expanded their sense of self, a desired outcomes of college, because of the potential lack of engagement. Veterans can be disconnected from the campus based upon personal obligations outside of the institution and their limited connections to their civilian peers (DiRamio, Ackerman, & Mitchell, 2008; Francis & Cook, 2012; Rumann & Hammrick, 2009; Wheeler, 2012; Vacchi, 2012). Contextualizing their engagement practices in relation to their connection to sense of self can determine if this student population is leaving college with the skills desired by the institution and if there are gender differences in this relationship.

Significance of Study

This study is significant because it provides an analysis of large-scale quantitative data focusing on student veterans. Many of the studies looking at the student veteran experience in higher education are qualitative in nature because it can be difficult to identify student veterans on college campuses. Students have to self-identify and not all students who utilize educational

benefits are veterans, as dependents are eligible as well. Another reason that studies tend to be qualitative is that researchers want to explore the student experience from the students' personal understanding. Exploring the student experience through interviews with student veterans has provided significant insight into the perceptions that student veterans have about their place on college campuses, campus environment, and peer relationships (DiRamio, Ackerman, & Mitchell, 2008; Vacchi, 2012; Francis & Cook, 2012; Rumann & Hammrick, 2009; Wheeler, 2012). While the qualitative literature is valuable to understanding how veterans perceive their college experience, the studies often include small sample sizes. To see how veteran students are behaving nationally it is important to have data available on them. This has been an area where limited information exists. Many of the national, large-scale quantitative studies have not captured veteran status, which makes assessing their behaviors, experiences, and perceptions difficult. The National Survey for Student Engagement did not start including veteran status on their survey until 2010, 10 years after the study originated.

There is a gap in the literature surrounding the engagement experiences of student veterans as a student population and this study builds on the existing research on student veterans and engagement. Cole and Kim's (2013) study is one of the few studies to explore the engagement patterns of student veterans compared to civilian students using NSSE data. My study expands on Cole and Kim's research by exploring the engagement patterns of only student veterans and exploring what differences exist in engagement based on gender. Women veterans may have different engagement behaviors from their male peers stemming from differences during their military service. While they are exposed to similar training, women veterans integrate into a historically male domain, where there are still experiences of sexism and resistance to their presence in the military (Timmons, 1992; Snyder, 2003). On a college

campus, female veterans are less likely to publically identify as veterans, and therefore may not engage in the same capacity as their male veteran peers (O'Herrin, 2011). This study also explores the concept of self-identity, which is a mostly unexplored field when looking at student veterans.

Lastly, this study's population is an understudied student population but one that colleges aspire to grow. Fourth year student veterans have been successful enough to make it to the end of their academic endeavors, which is notable as the veteran attrition rate is thought to be high. This makes exploring the engagement behaviors of senior student veterans a significant area of study. Understanding how this student population engages can allow educational institutions to provide further support for student veterans to continue to move towards completion.

Organization of Dissertation

This dissertation consists of five chapters. Chapter one introduced the problem, the research question's and conceptual framework guiding the study. Chapter two reviews the significant literature surrounding student engagement and understanding of self as well as the historical and current influence of the military and higher education on both male and female veterans. Chapter 3 discusses the research methodology that was used to examine the research questions, including the data source used, sample population, variables utilized, and research analytics. Chapter 4 presents the results of the data analysis. Chapter 5 concludes the dissertation with suggestions for further research and potential institutional changes.

Chapter Two

Review of the Literature

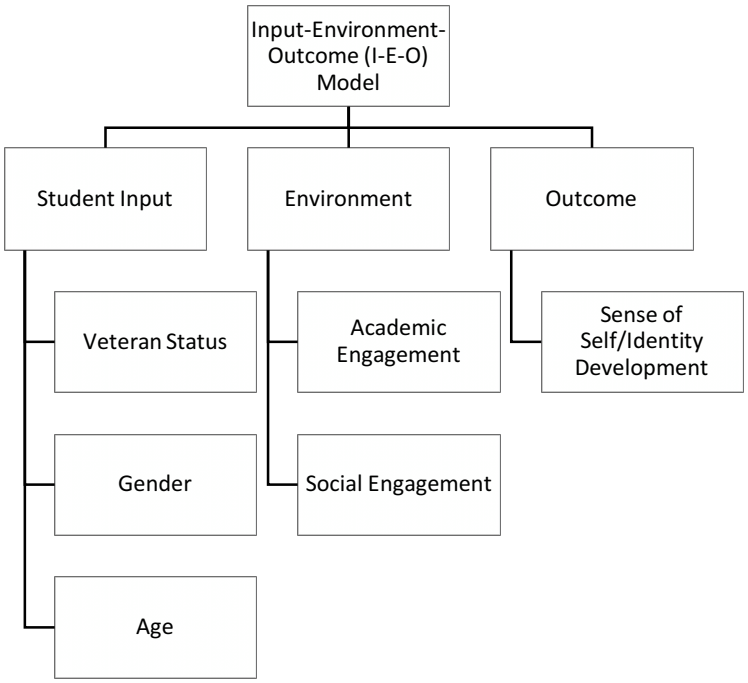
Introduction of I-E-O model

This study uses Astin's (1984) "I-E-O" model as a framework through which to view student veterans' engagement and their sense of self. Astin's (1984) "I-E-O" model is designed to understand student outcomes in higher education. One goal of this model is to highlight the entering characteristics of students and make them distinct from the experience that the student has while at college (York, Gibson, & Rankin, 2015). The "I" refers to input, which looks at the characteristics that students have when entering the institution (Astin, 1984). The knowledge that students have gained from their external relationships with others, or social and cultural capital, are input factors that shape the student's experience coming into college. Environment, or "E," is typically comprised of the following three variables: "(1) the institutional context, (2) academic experiences, and (3) co-curricular experiences" (as cited in Broido & Reason, 2005, p. 18). Student interactions with faculty, staff, peers, and programmatic events are examples of experiences. The output, or "O" focuses on the skills, abilities, or end result desired when a student completes their education. When considering the desired output of students as they leave an institution, the environment students encountered can play just as significant of a role as the initial input factors the student had when entering the institution (Astin, 1984).

In this study, input focuses on the characteristics of student veterans that make them distinct from their civilian traditional students, along with gender, which can influence their military experience as well as their collegiate one. The environment that veterans experience on campus may be interpreted differently from their traditional and civilian peers, due to factors that could affect their levels of academic and social engagement. Veteran student output in this study

is looking at their sense of self or their perception of themselves. Having a strong identity development or sense of self is an intended outcome of successful participation in the college experience (Quaye & Harper, 2015). This study uses Astin's I-E-O model as a structure to discuss the literature surrounding the student veteran engagement experience and associated understanding of sense of self:

Figure 1: Review of literature organization



Student veterans are a growing subset of students on college campuses today that need to continue to be the looked at as a unique student population within the non-traditional, or adult learner, group of students. The literature reviewed in this chapter draws from a wide base of research surrounding both veterans and student veterans to create a framework of understanding the military experience that comes with student veterans into their college environment. This chapter is structured into three sections using Astin's I-E-O model beginning with input, followed by environment, and ending with output. Input explores who joins the military, what the military experience is, military identity, what is unique about women veterans, and how this

all influences higher education. The next section, environment, investigates engagement theory, student veteran engagement and barriers facing student veteran engagement. The final section, output, examines sense of self and student identity theory and concludes with student veteran success.

Input

Input includes a variety of characteristics that students have prior to beginning their college career (Astin, 1984). These can include, but are not limited to race or ethnicity, age, socioeconomic status, prior academic rigor, gender, and veteran status (Broido & Rigor, 2005). This study is looking at the input characteristics of veteran status, age, and gender when coming to college.

Who joins the military? The military is comprised of a wide range of individuals that join for a plethora of reasons. While not a comprehensive list, the majority of people who join the armed forces do so for one of four reasons: family tradition, benefits, an identity of the warrior, and escape (Hall, 2011). Individuals who grow up in a traditionally military family may join the military because the environment is more familiar to them than the civilian life and they can continue a legacy of their parents. Lower-income service members of color report that their families face less discrimination in the structured military environment than their civilian family members, which reinforces the desire for young adults to continue with the military experience that their parents had participated in (Hall, 2011). There can be a strong financial incentive given to individuals when they enlist in the military. Individuals attracted to the military for the financial stability often come from economically unstable environments. Many young adults who are unclear of their future pathway look to the armed forces as a means of potential upward

mobility, with educational benefits, financial stability, and prestige that they may not be able to get at that point in their life in the civilian world (Hall, 2011).

There are two pathways within the military, enlisted service members and officers. Individuals pursuing the officer pathway are required to have a bachelor's degree to be commissioned as an officer (Military Today, 2018). Within the enlisted pathway, there are individuals that are deemed "non-commissioned officers," whom have spent enough time in the military or have a specialized skillset to allow them to be promoted within the enlisted ranks. However, it is not possible for a non-commissioned officer to move to be a commissioned officer without the completion of a bachelor's degree. In 2016, 82.3% of military service members were enlisted and 17.7% were officers (2016 Demographics, 2016). An anomaly to this system of emphasized career pathways within the military is the Marine Corps, which attempts to maintain a young, non-career focused military force (Kelty, Kleykamp, & Segal, 2010). The age limits for enlistment are as follows: Army, 35; Navy, 34; Air Force, 39; Marines, 28 (Smith, 2017).

Approximately 50% of the military service members are between the ages of seventeen and twenty-four years old (Kelty, Kleykamp, & Segal, 2010). Within the military, African American and Latino/as are overrepresented (Kelty, Kleykamp, & Segal, 2010). Several studies have sought to understand how non-white individuals may consider military enlistment as a "viable alternative to the civilian labor force" (Kelty, Kleykamp, & Segal, 2010, p. 187). In 2005, Blacks and Hispanics made up 19.9 percent and 9.8 percent, respectively, of enlisted soldiers in all military branches (Kelty, Kleykamp, & Segal, 2010). However, the presence of service members of color in the officer pathway was significantly lower than the enlisted ranks: 8.7 percent black and 4.8 percent Hispanic (Kelty, Kleykamp, & Segal, 2010). Individuals who enlist in the military are more likely to come from lower socioeconomic backgrounds and have

slightly lower academic performance in high school than their non-serving peers (Kelty, Kleykamp, & Segal, 2010). The lowest quarter of the socioeconomic strata are under-represented in the military because of the required educational credentialing in addition to the physical, and mental aptitude requirements for service. By not being able to participate within the military, this population is therefore not participating in the educational benefits that come from service. The top quartile of the socioeconomic strata self-selects out of service. This means that the primary composition of the military comes from individuals who fall into the middle socioeconomic class and report having a mean income that is below the national income average when joining (Kelty, Kleykamp, & Segal, 2010).

Military experience and military identity. Student veterans start college having already participated in an experience that is highly formative on their identity and understanding of who they are (McGurk, Cotting, Britt, & Adler, 2006). Conversely, traditional aged college students go through an integration into the college campus when they begin their college experience, which follows the prescribed pathway from childhood into adulthood (Tinto, 2003). The adoption of new college norms influence students' identity and understanding of themselves and depending on the student can be a positive or negative experience (Tinto, 2003). This can also be applied to how veterans feel about their military service. For veterans this formative process of integration happens during boot camp. The military emphasizes collective development instead of individual development, which is opposite of higher education's objectives (McGurk, Cotting, Britt, & Adler, 2006). Colleges and universities emphasize individual growth through personal, academic, social, and career exploration (King & Kitchener, 1993; Pascarella & Terenzini, 1991).

The military serves a different purpose in society than higher education and for the military, it is critical to develop a mindset of group benefit over individual benefit. For people to successfully enter the military, they are required to go through boot camp, a socializing ritual that indoctrinates the individual into the rituals and history of the military. Boot camp is intended to strip away individual identity, start the transition into adulthood, and create a shared identity among its participants (Arkin & Dobrofsky, 1978; Kelty, Kleykamp, & Segal, 2010; McGurk, Cotting, Britt, & Adler, 2006). The shared identity of "brothers in arms" and being part of an entity that is greater than a single person creates a sense of pride and value in the commitment to service and the organization. Boot camp bonds new military service members through the physical, psychological, and emotional trials that new military have to endure and overcome to create a mindset of "brotherhood," likeness, and support (Snyder, 2003; Timmons, 1992). Removing individuality from service members creates a disciplined group whose members are not focused on their unique needs, value and adhere to institutional hierarchy, and do not make decisions based solely on their individual goals and desires (Barrett, 1996; McGurk, Cotting, Britt, & Adler, 2006). To create shared identity, the military provides physical uniformity, and separates participants from friends and family to create new persona. These identity development techniques create a cohesive unit of shared values. Independent decision making that focuses on the individual instead of following orders for the benefit of the group can cause anxiety and challenge veterans' reintegration success (Ackerman, DiRamio, Mitchell, 2009; Bauman, 2009).

Women in military. The military is a gender integrated system, however, it is not gender inclusive, specifically for women. Military culture reinforces an ethos supportive of behaviors and attributes associated with masculinity, including competition and violence. While

these traits are expected and praised within the male soldier, when women demonstrate the same characteristics they are shunned for being "too masculine" (Holm, 1982; Willenz, 1982). This gender conflict surrounding the gender identity and expected roles of women serving is long standing within the military. When women initially served in the military during World War II, they were stationed in roles that were supportive and could still be perceived publicly as feminine. At the onset of their service, the members of the Women's Army Auxiliary Corps (WAAC) were attacked for their character because they were stepping outside of the traditional feminine expectations. Women serving in the WAAC were highly educated and had the lowest pregnancy rate of women in the United States. However, publications described them as "sluts," with loose moral character (Holm, 1982; Willenz, 1982). Today, women who serve in the military continue to be subjected to labels such as "sluts, dikes or bitches" because the dominant masculine warrior expectations persist (Silva, 2008, p. 948). As one female service member stated, "…the joke in the Navy is that a woman in the Navy is either a bitch, a slut, or a lesbian, and none of them are good categories to fall into…" (Silva, 2008, p. 950). These gendered stereotypes come not only from military peers, but also military spouses, the media, and the general population. By breaking through the gendered expectations of "womanhood," women service members become targets for harassment, isolation, and violence (Stachowitsch, 2013; Timmons, 1992). These are socially isolating factors that can influence a woman service member's self-identity and perception of herself and cause her to struggle with her choice for military service and distance herself from her male military peers.

Social integration is a theoretical framework that is used to explain how connected an individual feels to their community as well as the inclusion and exclusion within that community or group (Blau, 1960; Scheff, 2007). The military boot camp is the initial form of social

integration that service members experience in the armed forces. While at boot camp, women veterans may find that they struggle to break into the social environment of the military. Integrating women into this historical brotherhood can create moments of tension due to the systemic reproduction of the male warrior archetype that the military portrays (Snyder, 2003; Timmons, 1992). The environment cultivated at boot camps has not socially shifted to include women and is full of sexual innuendos and socially inappropriate phrasing through marching cadences, jokes, and demeaning comments. The hyper-masculinity of boot camp is reinforced with the sexual association of weapons with male genitals, as seen in the statement "This is my rifle, this is my gun; one is for fighting, one is for fun" (Snyder, 2003, p. 192). While looking for a sense of belonging in the military, these sexual innuendos can cause conflict and create complicated feelings for women in the military trying to connect to her male service members and still feel personal value in herself (Snyder, 2003; Timmons, 1992). Often times, women are unlikely to react towards the sexism experienced during their service for fear of being perceived as weak by their desired peer group, who is expressing their displeasure of the presence of women in the military through these sexual innuendos and sexist interactions (Braswell & Kushner, 2012; Wertsch, 1991). Many women feel that they have a psychological need to "merge their identity with that of the warrior" (Wertsch, 1991, p. 17). This builds on the theory of social integration, and promotes women integrating into their new military community and be perceived as an outsider. The military's primary objective is to have a force of individuals that can fight and defend the United States. Therefore, emphasis on combat and the warrior mentality is justifiable. The military reinforces a belief system and personal identity of the warrior, while still establishing parameters for acceptable warrior behavior and a sense of purpose and group identity (Hall, 2011). The "white, male warrior" archetype still exists in the military, regardless

of the policy changes created to eliminate sexism and discrimination within the military (Dunivan, 1994).

Once in the service, there are some aspects of military culture that can impact women in a different way than men. The military demands family mobility, and this can cause isolation and alienation from the service member's extended family (Hall, 2011). Within the family unit that relocates with the veteran, traditionally the spouse is expected to support the needs of their soldier spouse and integrate into the social environment of spouses. For women soldiers, their male spouses may find this experience of the military to be challenging, causing strain on the relationship. Women, when deployed, often report feeling less supported in their deployment than men feel. Women soldiers who are married and parents feel this burden of the distance in a greater way than male soldiers (King et al., 2006; Thorpe, 2015). When the soldier is a woman, family may scold her for abandoning her responsibilities of caregiving, leaving the socially gendered role of woman and therefore emotional support provider behind to pursue her "selfish" desires. In contrast, male veterans are praised and revered for their dedication to country and their family members are supported while their soldier is away from home to ensure no undue stress is placed upon the service member during deployment. Managing the anxiety and stress that comes from the perception of abandoning home and family can cause women to feel as though they have to make a selection between family and service (Hall, 2011; King et al., 2006). For female military service members, commitment to service typically prevails as they are stationed abroad, further isolating the soldier from her family because she has chosen to follow her professional pathway and serve wherever she is required (King et al., 2006; Thorpe, 2015).

Military identity and higher education. Veterans who become students have already had a formative identity experience through their military experience. When they begin

attending college, their military experience shapes how they perceive their college experience, which may or may not be a second formative experience for them. The transition from solider to civilian and then student may cause veterans to question their identity (Ackerman, DiRamio, Mitchell, 2009; Bauman, 2009). The variety of choices for students, especially within higher education, can overwhelm student veterans and cause them to disengage from their academic experience and question their ability to succeed outside of the military. Independent decision making that focuses on the individual instead of following orders for the benefit of the group can cause anxiety and challenge veteran's reintegration success (Ackerman, DiRamio, Mitchell, 2009; Bauman, 2009). Recognizing the level of influence that military service has on a student veteran is significant to understanding to what extent a veteran takes on the identity of student by providing opportunities for the student veteran to blend these two experiences into a new civilian student veteran identity.

Environment

The campus climate and experiences that students are exposed to while in college they are attending college is what Astin labels "environment" (1984). Environment can encompass everything that a student can encounter during their college experience. Assessing the environment that students encounter can be a challenging experience as there are such a wide range of variables that can influence the students' environment. These variables can include people such as faculty, staff, or roommates, organizational affiliation, institutional climate, and facilities at the institution (Astin, 1993). For this study, the measure of a student veteran's environment was engagement and explored at how engaged student veterans were in their academic experience as well as their social and campus experience.

Engagement theory. Student engagement is comprised of two elements. The first is the amount of time and energy that a student puts into activities, both academic and non-curricular, which contributes to the outcome of student success (Kuh, 2009). The second is the amount of energy that the institution spends on encouraging students to participate in these types of activities, both curricular and non-curricular (Kuh, 2009). Kuh has identified the following institutional factors as those that contribute to student development:

- A clear, focused institutional mission
- High standards of student performance
- Support for students to explore human differences and emerging dimensions of self
- Emphasis on early months and first year of study
- Respect for diverse talents
- Integration of prior learning and experience
- Ongoing practice of learned skills
- Active learning
- Assessment and feedback
- Collaboration among students
- Adequate time on task
- Out-of-class contact with faculty (Kuh, et al., 2005, pg. xv).

A questionnaire, the National Survey for Student Engagement (NSSE), was created in 2000 to capture the engagement experience for students attending four year institutions. From 2000-2012 the NSSE had five engagement benchmarks: academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and

supportive campus environment (NSSE, 2009; NSSE, 2010). These benchmarks measure the various elements of student engagement that are highlighted above, making both the student and the institution contributors to a student's engagement (Kuh, et al., 2005; Wolf-Wendel, Ward, & Kinzie, 2009).

Student engagement has become highly accepted as a strong predictor of student success while in college (Astin, 1993; Kuh, 2006; Pascarella and Terenzini, 2005; Tinto, 1993). While students come to college with many personal traits, or input in Astin's framework, that can influence their success in college, how they engage within the institution can influence their level of success while attending their academic institution (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006). Engagement theory's inclusion of the institution refocuses student success on areas that are within the institution's realm of control or influence, rather than just placing the burden for a student's success, or lack thereof, on the student or the traits they have when entering the institution.

> Faculty and staff formally engage students in class and informally outside of class. Students formally engage with other students in class and informally outside of class. Students also have different levels of motivation and implement different learning strategies. This complex set of behaviors and experiences influences student outcomes in a way that is generally described as 'engagement'. (Lester, 2013, p. 2)

Just because a student engages within their campus environment, however, does not mean that they have taken on the norms expected of them through their campus interactions.

Integration is used to explain the process of students taking on the shared attitudes and beliefs of their faculty and peers (Tinto, 2003). This happens through a three-stage process, beginning with the student separating themselves from their past, then moving to the student

interacting with their new environment, including their peers, and finally being completed with the adoption of the norms and expectations of the new group (Tinto, 2003; Wolf-Wendel, Ward, & Kinzie, 2009). Having students separate themselves from their past, which is where they gained their initial cultural capital and perceptions of the world, to align with peers that have a different perspective of the world, can feel like a betrayal to the community that shaped the student. Not wanting to turn their back on their original community to integrate into the new community of college students can cause mixed feelings of assimilation, betrayal, isolation, and disconnect from all communities (Taylor & Howard-Hamilton, 1995). Veteran students have already undergone the process of integration, but into the military instead of higher education. Having already gone through integration experience may make it less likely for military students to take on an additional belief system that may not align with the one that they gained from their experience in the military.

The distinctions between involvement, engagement, and integration demonstrate the various levels of institutional inclusion that students can choose to have at their academic institution, which can influence their level of success while in college. The current literature states that veterans may choose to be involved or engaged in their campus community but not integrate and take on the shared beliefs and values that exist within the campus due to poor peer relationships and an unwelcoming campus climate (DiRamio & Jarvis, 2011a; Livingston et al., 2012; Summerlot, Green, & Parker, 2009). Having an understanding about these foundational concepts associated with student success can help provide context for the greater depth exploration into the specific study of engagement.

Student veteran engagement. Institutions have been attempting to determine the best methods for veteran student engagement. The current research that exists surrounding how

veteran students engage highlights institutional practices that have been implemented for student veterans with various level of success. The programs that are highlighted in the literature include three categories: peer led programs, advising and career services, veterans' office or other veteran specific resources sponsored and run by the institution.

Peer led organizations are most commonly found as either a veteran mentoring programs or student veteran organizations (DiRamio & Jarvis, 2011a; Livingston et al., 2012). Mentoring programs provide initial peer relationships for student veterans entering higher education. Social support in higher education is important for fostering student academic adjustment (Gerdes & Mallinckrodt, 1994; Whiteman, Barry, Mroczek, & MacDermid Wadsworth, 2013). Social support is even more important when coming from peers (Whiteman et al., 2013). Strong social support can be used as a predictor of student retention and academic success, therefore programs intentionally create relationships for student veterans with their veteran peers can help support students in creating a sense of belonging on the college campus (Gerdes & Mallinckrodt, 1994; Whiteman et al., 2013). A student who has a strong sense of belonging is more apt to be engaged in their college community both academically and socially, leading to a stronger likelihood of completion. Additionally, strong peer relationships can improve a student's emotional adjustment and mental health (Gerdes & Mallinckrodt, 1994; Whiteman et al., 2013). Because student veterans are transitioning from a built-in support structure of military comradery that is built upon shared goals and trust to a new system where students are all independently working towards individual goals, it is possible that veterans may have trouble creating relationships with their student peers. It is particularly important to have intentional interventions for student veterans to create these new peer relationships to build the support structure to ensure their academic success. These interventions should provide support and raise

their awareness of the opportunities that are available to student veterans to connect to their campus and peers (Persky & Oliver, 2010). Veteran student organizations can serve as an important foundation to help student veterans to create an initial peer group that can help facilitate institutional engagement (Livingston et al., 2012). Having peer led programs connects veterans to a group of their peers and can create a more immediate sense of belonging when starting on campus.

Institutional support for student veteran engagement can come from advising and career services centers on campus. Individuals within these areas can provide student veterans with ways to see how their prior experiences in the military fit within the new puzzle of higher education that they are working within. Academic advising assists students in determining if any of their prior military experience credit can transition to their academic record and that their major pursuits align with the goals of their civilian transition (DiRamio & Jarvis, 2011a). Career services fill a similar role for student veterans. Career services assist veterans in finding professional positions after college as well as potential employment on campus that does not negate the ability to utilize educational benefits from the GI Bill. Being able to translate the skills acquired in the military into civilian terms on a resume assists student veterans in transitioning their prior service into their new civilian (DiRamio & Jarvis, 2011a; Ostovary & Dapprich, 2011).

A veterans office on campus is a central place to house resource for veterans as well as veterans' families. A veterans center provides a physical space for veterans to connect with one another, share personal experiences, and find support (Francis & Cook, 2012). Often times these offices sponsor peer led veteran student's groups, provide professional development for staff and faculty on campus, and most importantly, serve as a single point of contact for student veterans

to access the resources and support that they need (DiRamio & Jarvis, 2011a; Moon & Schema, 2011; Summerlot, Green, & Parker, 2009). Student veterans offices provide a safe space where veterans can begin engage with individuals that are supportive of the students' needs and have the understanding to build the veterans comfort within the institution. As veterans have continued positive experiences on campus, their willingness and comfort to engage in the community grows, improving their engagement in their academic and social experience (DiRamio & Jarvis, 2011a; Summerlot, Green, & Parker, 2009).

Much of the literature surrounding student veteran engagement comes from institutional implementation of various programs to expand upon previously identified veteran best practices. Many of these programs focus on ways that the institution, faculty and staff, can support the student veteran community. This could be expanding the resources and knowledge available so that one office or person is solely responsible for the support of student veterans. One example of expanding knowledge and support provided by a veterans center is at Western Michigan University, which implemented the "everybody plays" philosophy on campus, where faculty, staff, and students are part of the military friendly paradigm that has been integrated into the academic, social, and individual engagement opportunities of student veterans (Moon & Schema, 2011). A partnership with the Veterans Administration counselors provided educational seminars for faculty and staff about transition issues that could be recognized in a variety of settings where student interactions occur (Moon & Schema, 2011). In addition to this partnership, Western Michigan created a 'System of Care' where students, faculty, and staff could access resources for personal or health issues that could affect student veterans (Moon & Schema, 2011).

Virginia Commonwealth University (VCU) expanded upon the "everybody plays" philosophy with the creation of the Green Zone program (Nichols-Casebolt, 2012). The Green

Zone is modeled off of the LGBTQ program called Safe Zone, which allows individuals to go through a voluntary training to have a basic understanding of the challenges that are facing students that identify as LGBTQ (Nichols-Casebolt, 2012). Within the Green Zone training, VCU focused on building campus allies that are aware of the needs and challenges that are facing student veterans on campus and providing an identifying logo that students can find to be aware of who can provide a safe space for them to utilize as a resource if they need assistance (Nichols-Casebolt, 2012).

Lastly, the University of West Florida (UWF) has a high military student population and has partnered with the Department of Defense to pilot test internet-based courses on devices that can be used where there is limited internet availability (Ford, Northrup, & Wiley, 2009). The intention of the pilot is to allow military students to continue to participate in their education while on deployment (Ford et al., 2009). UWF has also created community partnerships for wounded and disabled veterans that are eligible and interested in pursuing a career in teaching. The program provides opportunities for student veterans to have more in-classroom teaching experience while they are pursuing their degrees and while supporting schools that have teacher shortages by filling their missing teacher positions (Ford et al., 2009). This program is called Hometown Heroes Teach and supports veterans' education while reintegrating back into their community (Ford et al., 2009).

Barriers for student veteran's engagement. While there is research that shows the various ways student veterans engage based upon on their interests and the opportunities provided to them at their institutions, research also reports the barriers still exist for these students, regardless of gender. These barriers fall into three categories: peer relationships, campus climate, and institutional marginalization. Women veterans may face additional barriers

that are specific to their experience in the military and higher education (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011; Dunivan, 1994).

Peer relationships and campus climate. Veterans are on average 25 years old when they return to higher education while classmates are traditionally-aged students, usually just out of high school (Molina, 2015). This age gap can cause an initial rift between civilian and veteran student. This disconnect grows between peers not only based on age but on maturity level and varied life experience that veterans bring to the campus environment (DiRamio, Ackerman, & Mitchell, 2008). Many veterans believe that students who have not served in the military lack an understanding of the brotherhood that comes from military service, including the unwavering loyalty of peers regardless of time spent with them (Vacchi, 2012). Veteran students report feeling uncomfortable in a classroom setting because of their age. Moreover, their experience levels set them apart from their traditional aged peers. Ryan et al. (2011) found that they fear that other students look to them as being a leader because they are older, with knowledge about the higher education system even though they may have the same level of knowledge, if not less than, their civilian peers. In fact, in 2010, sixty-six percent of veterans identified themselves as first generation students (Worster et al., 2013). While student veterans are non-traditional in age, their prior experience have provided them with a form of cultural capital that is not valued within the environment of higher education.

The gap between civilian and veteran students comes from the stereotypes that are placed on individuals leaving the military. Several authors have noted that civilian students assume that veterans hold certain religious beliefs, political beliefs, social values, and have underlying violent tendencies (DiRamio, Ackerman, & Mitchell, 2008; Ryan et al., 2011). It is also common that once a civilian student finds out that their peer is a veteran they ask questions that

are presumptuous of deployment and insensitive to veterans military experience, such as 'have you ever killed someone' or 'have you ever seen someone blown up' (Ryan et al., 2011; Wheeler, 2012). While these types of questions may not be malicious in intent, they are isolating for the veterans and can halt the process of building peer relationships (Ryan et al., 2011; Wheeler, 2012). These interactions can cause veteran students to perceive peer relationships with their traditional aged or civilian peers with ambivalence and make it unnecessarily challenging to try to establish and maintain relationships (Livingston et al., 2012; Summerlot, Parker, & Green, 2009).

Research has identified three types of campus climates when discussing veterans on campus: supportive, ambivalent, and challenging climate (Summerlot et al., 2009). A supportive campus climate is an environment where student veterans do not feel the need to hide their veteran status and often provide support structures for student veterans. An ambivalent campus climate is often found when student veterans mix with non-traditional and commuter students and find their veteran support in off-campus environments (Summerlot et al., 2009). Lastly, a challenging campus climate is often found on campuses where there is a history of anti-military sentiment and political dissent. Student veterans on these campuses often do not feel comfortable identifying as veteran for fear of the backlash they might encounter (Summerlot et al., 2009). Having a supportive campus climate does not mean that a school can become passive in their maintenance of this climate. The campus administration can continue to provide support and growth of their veterans' program. An ambivalent and challenging college climate offers clear opportunities for improvement of their college experience (Summerlott et al., 2009). There are some environments that veteran students have reported feeling so strongly disconnected or uncomfortable that they determined it was easier to not self-identify as a veteran than to try to

field the questions and to avoid perceived hostility towards them (Rumann, Rivera, & Hernandez, 2011). Having a campus climate that is challenging towards student veterans may discourage student engagement within the environment, regardless of whether the student has disclosed their veteran status or not (Summerlott et al., 2009). Even an ambivalent campus climate towards student veterans can reduce the likelihood of student engagement and therefore lower graduation rates. The inability to acknowledge a part of a student's identity, especially one that is formative in their understanding of self, can cause students to become hostile towards their academic experience or turn their frustration inward and try to disengage their military experience from their current sense of self (Rumann & Hammrick, 2009).

Institutional marginalization. Veterans are often encouraged to take six months off between military service attempting to enroll in college. This time off allows for them to build a "neutral zone," which includes allowing a time for ending their military experience before trying to force a next step with the uncertainty of military separation, whether this be pursing education or employment (Ackerman et al., 2009; Ryan et al., 2009). However, after leaving the military some veterans find that they feel have lost a sense of purpose and are unsure of their next financial support structures (Bauman, 2009; Rumann & Hamrick, 2009). With the GI Bill as an immediate financial resource available upon separation from the military, some veterans disregard the suggested neutral zone and end up struggling with the quick transition to being both a civilian as well as a student. Higher education has elements that are similar to the military, with deadlines and expectations, but has more characteristics that are in opposition with the military culture. These include emphasizing individual decision making and self-direction, which after an extended term in the military can be seen as oppositional to their current way of life (Ryan et al., 2009).

Having an ambivalent or negative campus climate can be a sign of institutional marginalization of student veterans. Oftentimes institutional marginalization is unintentional and comes from system processes that have been put into place for consistency but may disadvantage this specific student population. One example of this is the timing of the academic calendar, especially at four-year institutions. Admission deadlines, registration deadlines, late fees and traditional course lengths can cause challenges for veterans preparing to transition out of the military and into civilian life (Griffin & Gilbert, 2012). When a veteran is getting ready to leave the military and prepare for the transition to civilian life, the transition struggle may be anticipated, unanticipated, or non-events (Rumann & Hamrick, 2010). These different transition types can cause anxiety for veterans. Something like the date a service member leaves the military may seem simple to civilians but can be chaotic and stressful to coordinate for the service member. For example, the day a veteran is released from service can change, which can also change their transition to civilian and student life from an anticipated transition to being a non-event if it becomes rescheduled. It could also become an unanticipated transition if they do not expect to be released but end up receiving their discharge paperwork. The academic calendar is not typically conducive to meeting a veteran's needs once discharged from the military. The challenge of transitioning to into higher education, which has rigidity in its timelines and deadlines, from another rigid institution of the military, where the service member has no control over their situation creates anxiety and potential long-term delays in beginning a student's academic career. In addition to the general challenge of meeting deadlines for the admittance and financial aid, many of these do not hold the system knowledge to navigate the system efficiently (Ackerman et al., 2009; Rumann & Hamrick, 2009; Wurster et al., 2013). These

deadline challenges all support the concept of having veterans participate in a waiting period while they transition out of the military and into higher education.

While these barriers exist for all student veterans, women veterans face additional barriers towards their engagement in the college campus based on the combination of their gender and military status (Baechtold & DeSawal, 2009). These challenges are unique from their male veteran peers and can affect their ability to successfully navigate the campus experience and engage within their campus community.

Barriers for women veterans. Women veterans have had different challenges during their military service than their male peers, which challenged their understanding of self in relation to gender expectations, family obligations, and social expectations (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011; Dunivan, 1994). After separating from the military and attending higher education, women student veterans continue to have a different experience from their male peers. The social expectations and stereotypes that women veterans face of not fitting into the expected veteran box of a "masculine warrior" leads to an unclear understanding of who they are, influencing their engagement within the campus community. Women veterans are more likely to be non-white than their male peers, 40 percent compared to 32 percent respectively (DiRamio & Jarvis, 2011). Women are also shown to be single parents more often than their male veteran peers, 11 percent compared to four percent (DiRamio & Jarvis, 2011). The role of caretaking can have an impact on a student veteran's ability to commit the necessary time and focus towards their academic ambitions. Understanding these demographic distinctions, such as parental status, between women veterans, their male veteran peers, and their traditional aged peers highlights the disconnect between women veterans and these peer groups (Baechtold & DeSawal, 2009). Through the transition out of the military and into academia,

women have to determine how to balance their intersecting identities of woman, soldier, and student in an environment where they may not have strong ties to their student peers. Additionally, women veterans have limited help seeking behaviors both on and off campus, perceive having limited supports for academic pursuit and few role models or mentors that align with their military and gender identity (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011).

The military is an experience founded on exclusion (Dunivan, 1994). Serving in the military is an elite experience that is intended to "break" participants' individuality and create uniformity in action and belief (Dunivin, 1994). Women serving in the military are indoctrinated into this exclusive, hyper-masculine culture with male-dominated traditions and expected to take on the masculine attributes of soldier while still maintaining a feminine identity (Dunivin, 1994). The gender roles society holds for women of being a submissive nurturer is in direct opposition to the masculine warrior gender norm that is attached to soldiers and service in the military (Dunivin, 1994). These opposing gender identities that come from the military push female veterans understanding of self into a place of conflict, where they may struggle to maintain a sense of self that is strong and able to withstand challenges. Women veterans may be forced to straddle these two worlds of gender norms, and these challenges may shape their experiences when entering higher education (Ackerman et al., 2009). While serving in the military women service members find a way to maintain these dueling identities because the masculine requirements of service make it obvious which behaviors should be prioritized and valued.

The opposing gender identities that exist while in the military do not cease to exist when the female service member separates from the military and enters higher education. The struggle continues with now the blending of the new identity of civilian and student to integrate into her understanding of self. Once a female service member separates from the military the social

norms of a co-educational environment like higher education, which is predominantly female, can cause women veterans to struggle to adjust their identity to align with the social norms of feminine behavior (Baechtold & DeSawal, 2009). When a woman veteran leaves her military community, she is "forced to again redefine who she is as a civilian, a veteran, a female, and a student" (Baechtold & DeSawal, 2009, p. 40) which is a unique experience for women in the military. Male veterans have to integrate and determine their student identity, but their gender identity does not change. Rather, it is commonly reinforced with praise for the service and fulfilling the gendered role of the soldier (Baechtold & DeSawal, 2009).

An extension of the military gender struggle of masculinity and femininity comes from a female veteran's lack of help seeking behavior. After their immersive service within a hyper masculine and combative culture, female veterans are at risk for higher rates of mental health complications than their male peers, including but not limited to military sexual trauma, post-traumatic stress disorder, and misdiagnosed anxiety disorder (Baechtold & DeSawal, 2009; Crompvoets, 2011). Unfortunately, while women veterans are at risk for these mental health issues, they may also avoid getting treatment or help for mental or physical health issues once out of the military because help seeking behavior has been socially reinforced through the military as a demonstration of weakness and inadequacy (DiRamio & Jarvis, 2011; Misra-Hebert et al., 2015; Suris & Lind, 2008). Part of being a masculine warrior is the implication that there is never a need for help. While male veterans are also conditioned to not show weakness, the stigma for seeking help for women veteran is even stronger than for male veterans because they have been told that they should not be part of the military because they are not as physically or emotionally capable of serving as men (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011). Therefore, the need to ask for help reinforces the belief that women veterans are weak, unable to

pull their weight within their service, and should not be considered veteran (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011). There is also a belief among service members that there is a hierarchy among types of disabilities that need treatment (Baechtold & DeSawal, 2009; Crompvoets, 2011). This hierarchy puts veterans that are struggling with mental and emotional health below individuals with physical disabilities, such as war injuries, that can be seen and are socially understood. The stigma of seeking help for an "invisible" disability persists and adds to the rationale for not seeking help when in need (Baechtold & DeSawal, 2009; Crompvoets, 2011). Women were not permitted to serve in combat zones until 2015, therefore it was most often men returning from service with the prioritized physical disability compared to the "invisible" disability that women are experiencing and reinforcing the idea that their treatment is less necessary than their male counterparts (Baechtold & DeSawal, 2009; Crompvoets, 2011).

Another disadvantage facing women veterans is the lack of same-gender role models once they start attending college (Baechtold & DeSawal, 2009). As women veterans transition to their college environment, they need to be able to find other women that can support them through their transition experience. This support can include establishing their new identity. One obstacle to finding support is the limited women veterans who are in advanced positions that can role model and assist with this transition (Baechtold & De Sawal, 2009). Many higher education institutions do not have a high number of women veterans working on their campus, regardless of the position type, which makes it challenging to find a mentor for this population of women that meets all of their identity needs (Baechtold & De Sawal, 2009; DiRamio & Jarvis, 2011). This is in addition to the struggle that women veterans do not seek out assistance when they need help; if there is a male veteran mentor program it may be uncomfortable for women veterans to share the challenges facing them because of the prior stated concerns of appearing

weak to their male peers (Baechtold & DeSawal, 2009; Crompvoets, 2011; DiRamio & Jarvis, 2011).

In addition to a lack of role models and limited help-seeking behavior, women veterans also face limited personal support in their academic endeavors (Baechtold & DeSawal, 2009). Women veterans, while serving in the military, have lower levels of familial support than their male counterparts, which may carry over to their academic pursuits (Baechtold & DeSawal, 2009). Serving in the military has a time commitment associated with it where individuals are required to be away from their homes and families, causing women to be shamed for their choice of self over family (Baechtold & DeSawal, 2009; King, King, Vogt, Knight, & Samper, 2006). After leaving the military, female veterans can feel uncertain about pursuing an academic path when their military pathway did not come with high levels of personal support for their life choice (King, King, Vogt, Knight, & Samper, 2006). Pursing their education is an additional time commitment that can bring guilt to the female veteran for continuing to engage in an experience that is not purely focused on the family that they have been told they have already abandoned (Baechtold & DeSawal, 2009; King, King, Vogt, Knight, & Samper, 2006).

Output

In Astin's model, output refers to the desired skills and abilities that a student should have at the completion of their college experience (Astin, 1984). The skills and abilities that students are expected to have come in two different ways. Some of these skills are based upon the discipline they study and are understood as fact, such as knowing the chemical formula of aspirin or the mathematical formula for the quadratic equation (King & Kitchener, 1993). Other skills are applicable to all disciplines of study and should be acquired through the experience of academic and social engagement within an environment of higher learning, such as critical

thinking, maturity, or having a strong understanding of oneself to pursue and achieve life goals with confidence (King & Kitchener, 1993; Pascarella & Terenzini, 2005). Both the characteristics that a student brings in with them when beginning college, their input, as well as the experiences they have while in college, their environment, shape the output that they have at graduation (Astin, 1984).

Sense of self and identity theory. Having a strong sense of self is tied to emotional maturity and a clear understanding of the identity that you hold as an individual. While in college, students are pushed to expand their understanding of who they are through the acquisition of new ideas and differing viewpoints towards their understanding of the world. Having the college environment "place self as central is necessary to assist students to meet typical expectations of college life" (Baxter Magolda, 2003, p. 232). College helps to push students beyond their boundaries to find an understanding of who they believe themselves to be. This allows students to have conversations that come through exploring alternative ways of knowing while further deepening their realization of who they are. As Baxter Magolda states "educators know that college students need to develop an internal compass to achieve complex learning. Critical thinking, the most agreed upon goal of higher education, requires the ability to define one's own beliefs in the context of existing knowledge" (2003, p. 232-233).

Measuring sense of self can be a challenging task due to the intrinsic consideration required and is often assessed based on an individual's reflection of themselves. While a scale has been created, the Sense of Self Scale (SOSS), it is rarely used outside of psychological assessments for people being evaluated for borderline personality disorder (Flury & Ickes, 2007; Ickes, Park, & Johnson, 2012). Sense of self is discussed on a sliding scale of strong to weak (Flury & Ickes, 2007). Having a weak sense of self oftentimes comes with a lack of

understanding of what belief system a person holds, an inability to describe who they are or what they think, and an ease in adapting or taking on other people's belief systems (Flury & Ickes, 2007). Having a strong sense of self is demonstrated by having a clear understanding of your value and belief system, the ability to explain your values to another person, and a confidence of knowing who you are when the dialogs occur with perspectives that are different than yours (Baxter Magolda, 2003; Flury & Ickes, 2007).

Sense of self builds into identity development. Identity development looks at an individual's exploration and commitment. Exploration focuses on an individual's ability and desire to explore alternative beliefs and perspectives while commitment explores an individual's decision to pursue a specific path and the likelihood of maintaining that path (Ickes, Park, & Johnson, 2012; Torres, Jones, & Renn, 2009). There are four levels of identity development: diffused, foreclosed, moratorium, and achieved (Ickes et al., 2012). Diffused development is low exploration and low commitment, where a person is uninterested in exploring new ideas or beliefs nor are they interested in determining what their strengths are. While they may end up employed in something they are good at it is because of chance and not because of purposeful action (Ickes et al., 2012). People who are at the foreclosed identity development stage are low exploration but high commitment and usually imitate the belief systems of their friends and family without a deep understanding of those beliefs because they have not taken the time to explore their system of beliefs or alternative ways of thinking (Ickes et al., 2012). Individuals that have an identity at the moratorium status have high exploration and low commitment and are actively exploring their interests and beliefs but have not committed themselves to any belief systems (Ickes et al., 2012). Finally, achieved identity is high exploration and high commitment, where a person can be actively working to determine their belief systems but have established

enough of a foundational system of beliefs that they are expanding their knowledge, not developing their understanding of themselves (Ickes et al., 2012). Moratorium and achieved identities are associated with having a strong sense of self, while diffused and foreclosed identities are associated with a weak sense of self.

Within higher education there are a variety of identity development models that stem from psychology, sociology, social psychology, human and developmental ecology, and postmodernism (Torres, Jones, & Renn, 2009). Within all of the models that explore identity development all regard the experience as an evolutionary process (Torres et al., 2009). College is intended to provide an opportunity for students to discover themselves through a variety of educational opportunities with the goal that by the time a student graduates from college their identity is developed to a moratorium or achieved identity status and they have a strong sense of self. Being able to explore one's "abilities, aptitudes and objectives" along with self-understanding in an environment that is conducive to alternative ideas and open discussions is part of the college experience that comes from academic, social, and career engagement (Torres et al., 2009, p. 577). While there are multiple levels of identity that can intersect amongst themselves, an assessment an individual's understanding of self is a personal and intrinsic evaluation that is not often evaluated while in school but is presumed to have occurred and grown while going through the higher education experience. There is an assumption that graduates leave with a strong sense of self and understanding of who they are as they enter the workforce (Gerdes & Mallinckrodt, 1994; Torres et al., 2009)

Student success and completion. Limited research exists on student veteran success and completion rates, however, the goals and objectives of completion for traditional students can be extrapolated to student veterans as measures of a successful college experience. Student

outcomes from engagement in college include "cognitive and intellectual skill development; college adjustment; moral and ethical development; practical competence and skill transferability; the accrual of social capital; a psychosocial development, productive racial and gender identity formation, and positive images of self" (Quaye & Harper, 2014, p. 3). These outcomes are achieved through a student's purposeful participation in their educational experience, both academically and socially (Quaye & Harper, 2014). While in college, men and women face different challenges to overcome in order to 'fit in' and complete their psychosocial development to strengthen their gender identity and understanding of self (Harris III & Lester, 2009). The process of overcoming these challenges come through opportunities for students to engage within their campus community academically and socially (Quaye & Harper, 2014). The "hallmarks of an educated person [include]…an integrated sense of self and the ability to apply knowledge to everyday life, advocate the central role of self in education" (Baxter Magolda, 2003, p. 232). Freshmen entering college rarely have an achieved identity status while students in their senior year often have an achieved identity in either occupational or ideological areas (Pascarella & Terenzini, 1991). Identity development and understanding of self does not stop at the culmination of a student's academic experience, but rather "cultivating the 'capacity to respond' requires self-reflection on one's identity and relations with others. Research indicates that this mode of meaning making emerges closer to age 30 than to age 17" (Baxter Magolda, 2003, p. 232). The measurement of this outcome of college is difficult to attain, but is often seen through a student's confidence in their occupational pursuits and ideological understanding of who they are. Being able to have civil dissent with another individual without losing confidence in the belief system that they hold as an individual demonstrates self-awareness and potentially achieved identity status (Baxter Magolda, 2003). Regardless of whether the student graduating

is a civilian or a veteran, the objective is to have established a strong sense of self and identity to be able to integrate into society with the skills expected of a college graduate.

Conclusion

This study uses Astin's I-E-O model as a framework for exploring senior student veterans' sense of self at the conclusion of their academic career. This chapter began with an exploration of the input or characteristics of the individuals that serve in the military, including age, gender, as well as the military experience that can shape their military identity when they enter college. Then transitioning to the environment that student veterans are engaging with on their college campus both academically and socially. Finally, understanding the outcome of having a strong sense of self or developed identity at the end of the college experience. In the next chapter the methodology that was used for this study is explained, including a delving into the data source utilized, who comprised the study sample, the variables expanded and finally the methods of data analysis employed.

Chapter Three

Research Methodology

The purpose of this study was to examine how the five National Survey of Student Engagement (NSSE) benchmarks (active and collaborative learning, supportive campus environment, student-faculty interaction, level of academic challenge, and enriching educational experiences) predict a contribution in understanding of self for senior student veterans at four-year institutions in the United States. The following research questions were addressed in this study:

1. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict veteran students' self-assessed contribution to their understanding of self?
2. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?
3. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

The SPSS statistical analysis software was used to analyze the data in the study. This chapter outlines the data sources, sample, instrumentation, variables, and methods for the data analysis.

Data Source

The data source for this study was the responses to the 2012 NSSE survey. The National Survey for Student Engagement (NSSE) was developed in 1998 by Kuh with the support of the Pew Charitable Trusts to provide a quantitative assessment for institutions to assist in measuring

their success engaging students (NSSE, 2001; NSSE, 2017). *The College Student Report*, which is the testing instrument that NSSE developed and uses, is built upon questions from prior national surveys including the College Student Experiences Questionnaire (CSEQ) and the Cooperative Institution Research Project (CIRP), as well questions from assorted surveys from the University of North Carolina (NSSE, 2001). Institutions that have been utilizing NSSE have been administering the survey to freshmen (first year students) and seniors (fourth year students) annually in the spring. Since the initial administration in spring of 2000, over 1600 schools have participated in the NSSE with approximately 5.5 million students having completed the survey in the United States and Canada (NSSE, 2017). For this study, only students attending institutions within the United States were utilized. The survey focuses on both the engagement opportunities available to the student from the university as well as how the student engages with their education environment. Understanding the student experience allows institutions to begin to assess institutional practices from the student perspective (Kuh, 2004).

The original version of NSSE, which was used from 2000-2012, established five benchmarks for engagement: level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment (NSSE, 2010). These five benchmarks were each comprised of various questions that are calculated into a total score in each benchmark. In 2013 the NSSE underwent an overhaul, including moving from the five benchmarks to ten engagement indicators that are part of four themes of engagement (NSSE, 2014). For this study, the 2012 NSSE data was utilized as this was the last year that the variable of "understanding of self" was included on the survey. Because of this, I will explore the original five benchmarks developed and their relationship to student engagement.

Level of academic challenge. One goal of higher education is to provide students with a rigorous intellectual experience. The level of academic challenge benchmark focuses on measuring how students perceive their opportunities for challenging and creative course work as well as how challenging the academic expectations are (NSSE, 2010).

Active and collaborative learning. Another element of engaging in higher education is active and collaborative learning. Being an active participant in learning enhances the amount of information retained by students. The active and collaborative learning benchmark asks students about opportunities to collaborate with their peers in and out of the classroom to enhance their learning. The assumption is that by applying their skills in a variety of settings students will see the real-life application of learning that happens in the classroom. This benchmark also includes opportunities for collaboration inside and outside of class also enhances practical skills surrounding teamwork, which are necessary in the workforce (NSSE, 2010).

Student-faculty interaction. The student-faculty interaction benchmark examines the opportunities for students to build relationships and have strong interactions with their faculty. Faculty mentors are a central aspect of student-faculty interaction. Institutions that create opportunities to interact and build relationships between subject experts in a student's field of study and students create mentorships that are both academic and professional in nature. Students are able to receive feedback from professionals, experience research, and explore their academic and professional pathways with support and guidance (NSSE, 2010).

Enriching educational experiences. NSSE recognizes that not all learning takes place in the classroom. Students have the opportunity to be exposed to diverse communities, ideologies, and ways of thinking while in college. The enriching education experiences benchmark explores the activities that support a strong academic experience. This can include,

but are not limited to, internships, technology, and study abroad enhance students' understanding of the world that they live in. In addition, global citizenship and educational experiences shape students' skills not only academically, but personally (NSSE, 2010).

Supportive campus environment. This benchmark measures students' perceptions of their campus environment. Having a campus environment where students feel safe, welcome, and wanted encourages engagement within both the social and academic community. Students are more likely to complete their education when they feel that they are part of a purposeful community that support their ambitions (NSSE, 2010).

Understanding of self. This variable of understanding of self comes from asking students to evaluate how their self-understanding has changed during the course of their time at the college or university (NSSE, 2010). Having a strong sense of self is a desired outcome of the college experience, therefore asking seniors to reflect upon this element of their time in higher education provides a way to determine if the student population is meeting this outcome (Baxter Magolda, 2013).

Survey Administration

The National Survey for Student Engagement is housed at the Indiana University Center for Postsecondary Research (IUCPR). The Indiana University Center for Survey Research and IUCPR are responsible for the administration of the NSSE survey (NSSE, 2017). Four-year colleges and universities across the United States and Canada are invited to participate in the survey and those that accept the invitation submit files including enrollment data to Indiana University to serve as administrators. A random sample of half of the total sample at each institution is determined by NSSE and then students are individually invited to participate in the survey. Survey administration can occur either electronically or on paper hard copies, whichever

option the institution prefers. Results of the survey are returned to the NSSE administrators at the IUCPR (NSSE, 2017).

During the survey participants are asked to respond to questions about their undergraduate experience both in and out of the classroom. The questions are reflective on what students are both putting in and getting out of their educational experience and capture various elements of the student experience. The answers are grouped into five categories, or benchmarks discussed above: active and collaborative learning, level of academic challenge, supportive campus environment, student-faculty interactions, and enriching educational experiences (NSSE, 2014). The answers to the questions are converted to an interval point scale of 0-100 (NSSE, 2009). To provide each student with a composite benchmark score, the averages of the converted scores are calculated with the assumption that the student provided answers to three-fifths of the questions that comprise each benchmark (NSSE, 2009). If a student does not have the three-fifths question criteria met, then they are not provided a score for that benchmark. The minimum criteria for students to have met the three-fifths benchmark threshold is as follows: academic challenge is 7 out of 11 items answered; active and collaborative learning is 4 out of 7 answered; student-faculty interaction is 4 out of 6 answered; enriching educational experiences is 8 out of 12 answered; and supportive campus environment is 4 out of 6 questions (NSSE, 2009). The 2012 NSSE survey was used in this study because it was the final year that the question of understanding of self was included in the survey.

Sample

The data used in this study was acquired through a contractual partnership with Indiana University and the primary researcher. A data request was submitted for the entire veteran population of the 2012 NSSE participants as well as an additional 20% random sample of

civilian student participants. While the 20% random sample was provided, it was not used in this study. The data were shared with the researcher in a .sav file and included individual responses to all survey questions, student reported and institutionally reported demographic data, as well as composite scores for each of the five engagement benchmarks.

In 2012, there were 554 four-year colleges and universities in the United States that administered the NSSE survey (NSSE, 2012). The NSSE survey was available to institutions in two formats; on paper and web based, and the institution could choose their administration method. While surveys were available in either format, the veteran demographic was only included in the web-based version. Therefore, all veteran participants came from institutions that utilized the web-based survey. The average response rate for all survey formats in 2012 was 32%. "The highest in NSSE 2012 was 70%, and 52% of institutions achieved a response rate of at least 30%" (NSSE, 2012). This study included a specific population of the 2012 survey participants (n=7636) who met the following three conditions:

i. Responded in the affirmative the survey question "are you a service member of the armed forces"?
ii. A senior in fourth year of study and,
iii. Responded to the following survey question: "To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?"
    a. "Understanding yourself"

Although the NSSE survey is administered to both first year and senior undergraduate students, this study focused only on students that the institution classified as senior (fourth year). The reason for this is that veterans come to college having already had a formative experience,

their military experience. Therefore, the purpose of this study was to determine if college is also a formative experience that changes a veteran's student understanding of themselves.

Validity and Reliability

In 1998, the development of a national survey intended to gather quantitative information about student's experience directly from undergraduates (NSSE, 2017). The survey questions used by NSSE on *The College Student Report* were developed by experts and expansively tested before their initial pilot in 1999 with more than 76 colleges and universities to ensure sampling reliability (NSSE, 2017). Most of the questions that are on *The College Student Report* are conceptually similar to other well-respected surveys, such as CIRP (Kuh, 2004). The survey has been reviewed to ensure that the questions continue to maintain clarity and content validity with survey revisions occurring in 2000 and 2013 (NSSE, 2017). One of the acknowledged concerns that exists with *The College Student Report* is the utilization of self-reported data from undergraduates. It is possible that students will either mistake their ability or provide what they believe will be socially acceptable or untrue responses (Kuh, 2004). While this concern is recognized, there is significant literature that supports the utilization of self-reported data and under what circumstances they remain valid (Carini, Kuh, & Klein, 2006; Handelsman, Briggs, Sullivan, & Towler, 2005; Kuncel, Credé, & Thomas, 2005).

The College Student Report fulfills the circumstances that ensure validity as outlined by Kuh are as follows;

i. the information requested is known to the respondents;
ii. the questions are phrased clearly and unambiguously;
iii. the questions refer to recent activities;
iv. the respondents think the questions merit a serious and thoughtful response and,

v. answer the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways (2004, p.4)

Moreover, the questions on the survey are reviewed and edited annually to ensure they meet reliability expectations (Kuh, 2004). The survey uses a simple rating scale for students when reporting recent experiences in an attempt to minimize error and enhance accuracy of results (Kuh, Hayek, Carini, Ouimet, Gonyea & Kennedy, 2001).

As noted earlier in the chapter, the NSSE groups a series of questions to create each of the five educational benchmarks to encapsulate a conceptual understanding of student engagement. The validity, reliability and internal consistency of the questions that create these benchmarks have been repeatedly confirmed as being very high (Kuh, et. al., 2001; Kuh, 2004). The details of how the psychometric scales have been developed are listed on the NSSE website.

To confirm the internal consistency scales for this study a reliability test was run for each benchmark. A reliability coefficient must be .7 or higher to be deemed acceptable (MacMillan, 2000). The Cronbach's alpha reliability index are overall satisfactory for this study ranging from .67 to .78. When rounded to whole numbers the alphas for each variable is within an acceptable level.

Table 1 shows a comparison of the fourth-year veteran sample used for this study compared to the senior population of the 2012 NSSE.

Table 1. Cronbach's alpha comparison

Engagement Benchmarks	Veteran sample Cronbach's alpha	2012 NSSE survey total sample Cronbach's alpha
Academic Challenge	0.72	0.76
Active & Collaborative Learning	0.7	0.67
Student-Faculty Interaction	0.67	0.74
Enriching Educational Experience	0.74	0.66
Campus Environment	0.78	0.8

Variables

Independent – engagement benchmarks. This study investigated the effect of student veterans' engagement behaviors on perceived undergraduate outcomes in an attempt to understand to what extent true engagement practices predict student reported outcomes. The five engagement benchmarks determined by NSSE, listed below, act as independent variables:

i. Level of academic challenge
ii. Active and collaborative learning
iii. Student-faculty interaction
iv. Enriching educational experiences
v. Supportive campus environment

The specific questions that comprise each benchmark can be found in Appendix I. This study also looked to determine if gender played a role in predicting student reported outcomes.

Dependent variable – Self-reported/perceived outcomes. This study used the self-reported personal outcome of "understanding yourself" as demonstration that learning has occurred (Kuh, 2001). This dependent variable was selected from the section of NSSE that targets the growth or change based upon the student's experience at their college or university. The question posed to students is "*To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas*:

a. Acquiring a broad general education
b. Acquiring job or work-related knowledge and skills
c. Writing clearly and effectively
d. Speaking clearly and effectively
e. Thinking critically and analytically

f. Analyzing quantitative problems

g. Understanding computing and information technology

h. Working effectively with others

i. Voting in local, state, or national elections

j. Learning effectively on your own

k. Understanding yourself

l. Understanding people of other racial and ethnic backgrounds

m. Solving complex real-world problems

n. Developing a personal code of values and ethics

o. Contributing to the welfare of your community

p. Developing a deepened sense of spirituality

This study only used question k-understanding yourself. Students used the following Likert scale to respond: 1=very much, 2=quite a bit, 3=some, and 4=very little.

Control variables. Student learning can be influenced by a variety of factors, including, but not limited to, socioeconomic status, gender, race/ethnicity and academic performance as measured by grades at the institution. Based on the literature surrounding student veterans, this study controlled for race/ethnicity, which was dummy coded as individual variables, age, grades, and institution control (public/private).

Data Analysis

Data preparation. I received the responses for the entire veteran respondent population, both undergraduate first year and fourth year veterans from four-year colleges and universities in the United States. The data arrived in a .sav file and included the entire veteran population of NSSE respondents for 2012 (*n=9521)* as well as a 20% random sample of civilian respondents

(*n=46,316)*. The file was then split using the criteria of veteran status is yes, class standing is fourth year, and a response provided to the question "to what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas: understanding yourself". Using SPSS software version 23.0, data points were examined and cases with missing responses for the variables in question were deleted. This provided a study sample size of *n*= 7636.

The next step in preparing for data analysis was to determine the independent variables that would be used. Two of the benchmarks have additional versions of scores, adjusted level of academic challenge and comparable student-faculty interaction. For this study these two versions of benchmark scores were not used. Each benchmark is comprised of multiple questions that are grouped together to create an engagement score. This is because no one behavior is indicative of engagement, but instead, combinations of activities (Kuh, 2004). While the NSSE benchmarks are composite that provide insight into the students' experience on campus, the variable of understanding of self was a singular demographic question. The final variable that was utilized was self-reported gender. The variable of self-reported gender was used because in many studies done focusing on veterans, they are grouped into a collective whole of "veteran" but have not been studied regarding engagement based upon gender distinctions.

Methods of Analysis

The following procedures were used: descriptive statistics, independent samples t-test, bivariate correlation, analysis of variance and multiple linear regression.

Descriptive Statistics. To gain a general understanding of the data, descriptive statistics were calculated for the demographic characteristics, frequencies for self-reported gender (coded

1=male and 2=female), and self-reported race/ethnicity. Student selection options for gender are a binary option of male and female, or students may choose to leave the questions blank. The table below shows the gender distribution of fourth year (senior) veterans.

Table 2. Gender frequency

	Frequency (N)	Percent (%)
Male	5523	72.3
Female	2062	27.2
Missing	51	0.7
Total	7636	100

The NSSE allows students to self-identify their race/ethnic identity from a selection of 10 categories that are coded as follows: 1=American Indian or other Native American, 2= Asian American or Pacific Islander, 3=Black or African American, 4=White (non-Hispanic), 5=Mexican or Mexican American, 6=Puerto Rican, 7=Other Hispanic or Latino, 8=Multiracial, 9=Other race, 10=I prefer not to respond. The table below shows the breakdown senior veterans self-reported race/ethnicity. For the purposes of this study, those 10 categories were condensed to seven, with Mexican or Mexican American, Puerto Rican, and Other Hispanic or Latino being grouped as Latino. They were recoded as follows: 1=American Indian or other Native American, 2= Asian American or Pacific Islander, 3=Black or African American, 4=White (non-Hispanic), 5=Latino/Latina, 6=Multiracial, 7=Other race & I prefer not to respond.

Table 3. Race/ethnicity distribution

Race or ethnic identification	Frequency (N)	Percent (%)
American Indian or other Native American	109	1.4
Asian, Asian American or Pacific Islander	244	3.2
Black or African American	1054	13.8
White (non-Hispanic)	4569	59.8
Latino	615	8
Multiracial	210	2.8
Other & I prefer not to respond	797	10.4
Missing	38	0.5
Total	7636	100

The NSSE created age range groups for study participants with a total of six categories that are coded as follows: 1=19 or younger, 2=20-23, 3=24-29, 4=30-39, 5=40-55, 6=over 55. For the purpose of this study, those six categories were condensed to three: tradition student (23 or under), adult student (24-39), older student (40 and over). The table below shows the breakdown of the senior student veterans by age.

Table 4. Age distribution

Age Range	Frequency (N)	Percent (%)
Traditional (23 or under)	767	10
Adult (24-39)	3943	51.6
Older (40 and over)	2877	37.7
Missing	49	0.6
Total	7636	100

Mean (*M*), standard deviation (*SD*), frequencies (Freq) and percentages (%) for independent and dependent variables were computed as appropriate to determine general tenancies of the data and provide a visual distribution of the scores.

Independent samples t-tests. Independent samples t-tests were used to compare the means of two different groups of subjects on the benchmarks. For this study, the comparison groups were male and female to determine if there is a statistically significant difference in the means of the five engagement benchmarks as well as the dependent variable of understanding of self. Relationships are determined to be statistically significant at the .05 alpha level. Determining if there is a difference between the means of engagement indicators and the dependent variable of senior veterans shows if gender is meaningful in engagement of veterans.

Correlations. Correlations were used to measure the relationship between two variables (MacMillian, 2000). These relationships are either positive or negative and are represented by a number called a correlation coefficient (*r)*. The range of the variables fall between +1 and -1,

with a perfect positive or negative correlation having the value of +1 or -1 respectively. Regardless of the polarity affiliation of the number, the higher it is, the stronger the relationship. Bivariate correlations were used to determine the relationship between each of the five independent variables and the dependent variable. The independent variables include: level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment. The dependent variable was understanding yourself. Additional correlations were run based upon gender to determine if gender strengthens correlations between the five engagement benchmarks and the dependent variable of understanding yourself.

Regression analysis. Multiple linear regressions were used to determine the effect of the benchmarks on the self-reported outcome, while controlling for student demographics (race & age), academic ability (grades), and institutional control (public/private). Gender and the five engagement benchmarks (independent variables) were regressed against the one outcome, understanding self (dependent variable). Since gender proved to be statistically significant, two additional regressions were performed, one for male veterans and one for female, to determine if there is a difference in the predictive engagement behaviors based on gender.

Model of Analysis for Research Question 1

Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict veteran students' self-assessed contribution to their understanding of self?

Variables to be entered were as follows:

Independent variable:

Block I: Institutional control, age, race/ethnicity, student reported grades

Block II: Gender

Engagement benchmarks

Supportive Campus Environment

Level of Academic Challenge

Active and Collaborative Learning

Student-Faculty Interaction

Enriching Educational Experiences

Model of Analysis for Research Question 2.1

Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?

Variables to be entered were as follows:

Independent variable:

Block I: Institutional control, age, race/ethnicity, student reported grades

Block II: Engagement benchmarks

Supportive Campus Environment

Level of Academic Challenge

Active and Collaborative Learning

Student-Faculty Interaction

Enriching Educational Experiences

Model of Analysis for Research Question 2.2

Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

Variables to be entered were as follows:

Independent variable:

Block I: Institutional control, age, race/ethnicity, student reported grades

Block II: Engagement benchmarks

Supportive Campus Environment

Level of Academic Challenge

Active and Collaborative Learning

Student-Faculty Interaction

Enriching Educational Experiences

Limitations of the Data

As with all research, the study has limitations. One of the limitations within this study is NSSE reliance upon self-reported data. The NSSE survey relies primarily on self-reported student data, which can be skewed based on student perception, the passage of time, and the structure of the questions (Porter, 2011). One example of the limit with self-reported data is that fourth year students are asked to reflect on the four years of their academic experience to determine the amount of reading that was required of them throughout their college experience. Two factors may hinder an accurate estimation of this data point: time passed as well as monotony of the tasks completed while in the class they are reflecting on. It is presumed that courses will require reading of students but in studies that compare the self-reported reading requirements compared to the syllabi assigned reading, reading assignments tend to be over reported by students (Porter, 2011).

Despite these limitations, NSSE is the best national data available. The larger number of veterans in the sample make this an excellent source of data on an understudied population. The college experience is an inherently personal one and the only way to capture an individual's

perception through this experiential research is to have them report it. The NSSE has been in place and utilized to acquire the student experience for over 15 years at institutions in the US and Canada and is accepted within higher education as a valid and reliable data source. For this study, the NSSE was the only source that collected the data that was utilized, and therefore critical to completing this research.

Chapter Four

Results

The purpose of this study has to determine how engagement benchmarks established by the National Survey of Student Engagement (NSSE) predict increased understanding of self within senior student veterans at four-year colleges and universities within the United States. The independent variables in the study were the five engagement benchmarks (academic challenge, active & collaborative learning, student-faculty interaction, enriching education experiences, and campus environment), as well as self-reported gender status, and the dependent variable was self-reported understanding of self. I used SPSS to analyze the following data: descriptive statistics on demographics of student group and independent and dependent variables, independent samples t-tests, bivariate correlations, multiple linear regressions. This chapter discusses the results of these analyses. The first section describes the scales and basic demographics of the sample. The second section discusses the gender comparison of fourth year student veterans; the third section outlines the correlations between student veteran engagement benchmarks and understanding of self and the fourth section reviews the ability to predict an increase in veterans understand of self, based upon engagement benchmarks.

Describing the Sample

The population of student veteran's participants in 2012 NSSE survey was 3.3% *(n*=9527*)* of the entire survey population (N=285,926) (NSSE Overview, 2012). Of the student veteran population, this dissertation study looked specifically at fourth year, or senior, veterans (*n*=7800*)*. Within the student fourth year senior veteran sample, the sample population used for the statistical analysis was limited to fourth year veterans that responded to the question "understanding of self" (*n*=7636*)*. Table 5 shows the breakdown of demographic information of

the student veteran population being utilized in the statistical analysis by gender, race/ethnicity, and institutional characteristics. There is a disproportionate percentage of women veterans in the present sample (27.2%) compared to the percentage of active duty women service members in 2012, 14.8 percent (Office of the Deputy Assistant Secretary of Defense, 2012). This study sample shows 31.3 percent of veterans identify as non-white, which aligns with the national data of the active duty military minority population reporting less than 30 percent (Office of the Deputy Assistant Secretary of Defense, 2012). Finally, more than half of student veterans (52%) in this sample are at Master's level colleges and universities compared to 36.2% at Research universities and 12.6% at all other baccalaureate granting institutions.

Table 5. Student veteran demographic descriptive statistics

Variable		Perc. (%)	Freq. (N)
Individual Characteristics at the time of fourth year student veterans			
Gender	Male	72.3	5,523
	Female	27.0	2,062
	Missing	0.7	51
Race or ethnic identification (select only one)	Native American	1.4	109
	Asian American or Pacific Islander	3.2	244
	Black or African American	13.8	1054
	White (non-Hispanic)	59.8	4569
	Latino	8	615
	Multiracial	2.8	210
	Other & Prefer not to respond	10.4	797
	Missing	0.5	38
Institutional Characteristics			
Carnegie Classification	Research Universities	36.2	2760
	Master's Colleges & Universities	52.2	3986
	Baccalaureate Colleges	9.6	733
	Baccalaureate/Associate's Colleges	0.8	59
	Professional or Specialized Schools	1.3	98
Institutional Control	Public	55.5	4236
	Private	44.5	3400

Table 6 provides a greater depth of understanding of the senior student veteran population on the demographic categories of age, combat status during service, prior college

experience, time spent working off campus, time spent providing care to dependents, and parental education level. These variables were discussed in the literature review as demographic information that makes the student veteran population unique from non-traditional learners. Some highlights within the data are that over half of the senior student veteran population in 2012 had been in a setting where they would qualify for combat pay status. Almost 75% of student veterans did not start their education at the institution that they were attending when they took the NSSE survey, with 62% of student veterans reporting that they had attended a community college or junior college before coming their current four-year institution. Fifty-two percent of student veterans are between the ages of 24-39. When looking at external obligations that are facing senior student veterans, 35% reported not working off campus and 42% report working more than 30 hours a week off campus. In a similar vein, 31% do not have dependents who live with them while 28% spend more than 30 hours a week caring for dependents who live with them. Finally, 35% report that their mother and father have graduated high school but did not continue with their education beyond this point.

Table 6. Additional veteran student demographic descriptive statistics

Variable		Perc. (%)	Freq. (N)
Age	Traditional (23 and under)	10	767
	Adult (24-39)	51.6	3943
	Older (40 and over)	37.7	2877
	Missing	0.6	49
Combat, hostile fire, or imminent danger pay status	No	48.4	3696
	Yes	51.2	3908
	Missing	.04	32
Began college at current institution or elsewhere?	Started here	25.4	1941
	Started elsewhere	74.2	5665
	Missing	0.4	30
Since graduating HS, what types of schools have you attended other than the one you currently attend? (Select all that apply)	Vocational or technical school	31.8	2423
	Community or junior college	62.4	4752
	4-year college other than this one	42.5	3235
	None	10.9	827
	Other	21.6	1646

Hours per 7-day week working for pay OFF CAMPUS	0 hours per week	35.1	2681
	1-5	3.6	276
	6-10	3.8	292
	11-15	3.0	231
	16-20	5.1	391
	21-25	3.7	286
	26-30	3.0	229
	More than 30	41.9	3197
	Missing	0.7	53
Hours per 7-day week spent providing care for dependents living with you	0 hours per week	31	2365
	1-5	9.5	723
	6-10	8.8	671
	11-15	7.1	545
	16-20	7.9	602
	21-25	4.0	302
	26-30	3.0	226
	More than 30	28.3	2158
	Missing	0.6	44
Self-reported grades up to now at this institution	A	34.8	2654
	A-	19.7	1504
	B+	17.4	1326
	B	16.0	1222
	B-	5.6	431
	C+	3.7	280
	C	2.0	152
	C- or lower	0.4	31
	Missing	0.5	36
Highest level of education mother completed	Did not finish high school	14.5	1108
	Graduated from high school	35.3	2697
	Attended college but did not complete degree	15.4	1173
		11.2	854
	Completed an associate's degree	14.1	1077
	Completed a bachelor's degree	7.0	533
	Completed a master's degree	1.3	103
	Completed a doctoral degree	1.2	91
	Missing		
Highest level of education father completed	Did not finish high school	17.5	1339
	Graduated from high school	34.8	2654
	Attended college but did not complete degree	13.2	1010
		7.9	601
	Completed an associate's degree	14.8	1128
	Completed a bachelor's degree	7.3	560
	Completed a master's degree	2.7	204
	Completed a doctoral degree	1.8	140
	Missing		

The demographic variables were then evaluated by the veteran's gender. Tables 7 and 8 show a breakdown of the previously discussed demographics. Some of the results for fourth year male veterans versus female veterans show that 56.8% of male veterans were stationed in positions that would put them into combat pay status, compared to 36.8% of women veterans reporting combat pay status. This aligns with the military policy that restricted women from being stationed in combat roles until December 2015 when the policy was rescinded (Chappell, 2015). Another statistic that was noteworthy is the racial identity of male veterans. Sixty-three percent of male veterans report being white (non-Hispanic) compared to 52% of female veterans. This data shows that male student veterans are less racially diverse group than their female veteran counterparts. A final demographic worth noting is that a higher rate of male veterans report working off campus for more than 30 hours a week, 44%, compared to 36% of female veterans report the same amount of time spent working off campus.

For fourth year women veterans, the demographic data shows that 40% of female student veterans report being a student of color compared to 28% of male student veterans, making this population a more racially diverse population. Forty percent of female student veterans report spending more than 30 hours a week caring for a dependent, compared to 24% of male veterans reporting more than 30 hours a week spent caring for a dependent.

Table 7. Male and female student veteran demographic descriptive statistics

Variable		Freq. (N) Male	Perc. (%) Male	Freq. (N) Female	Perc. (%) Female
Individual Characteristics at the time of fourth year student veterans					
Race or ethnic identification (select only one)	Native American	82	1.5	26	1.3
	Asian American or Pacific Islander	170	3.1	72	3.5
	Black or African American	587	10.6	459	22.3
	White (non-Hispanic)	3487	63.1	1069	51.8
	Latino	449	8.1	161	7.8
	Multiracial	133	2.4	76	3.7
	Other & Prefer not to respond	592	10.8	193	9.4
	Missing	23	0.4	6	0.3
Institutional Characteristics					
Carnegie Classification	Research Universities	2015	36.5	726	35.2
	Master's Colleges & Universities	2844	51.5	1115	54
	Baccalaureate Colleges	539	9.8	190	9.2
	Baccalaureate/Associate's Colleges	45	0.9	14	0.6
	Professional or Specialized Schools	80	1.4	17	0.8
Institutional Control	Public	3065	55.5	1141	55.3
	Private	2458	44.5	921	44.7

Table 8. Additional male and female veteran student demographic descriptive statistics

Variable		Freq. (N) Male	Perc. (%) Male	Freq. (N) Female	Perc. (%) Female
Age	Traditional (23 and under)	557	10.1	206	10
	Adult (24-39)	2835	51.3	1096	53.2
	Older (40 and over)	2106	38.2	756	36.7
	Missing	25	0.5	4	0.2
Combat, hostile fire, or imminent danger pay status	No	2377	43	1297	63.2
	Yes	3125	56.6	756	36.8
	Missing	21	0.4	9	0.4

Variable cont.		Freq. (N) Male	Perc. (%) Male	Freq. (N) Female	Perc. (%) Female
Began college at current institution or elsewhere?	Started here	1478	26.8	451	21.9
	Started elsewhere	4023	72.8	1604	78.1
	Missing	22	0.4	7	0.3
Since graduating HS, what types of schools have you attended other than the one you currently attend? (Select all that apply)	Vocational or technical school	1776	32.3	629	30.5
	Community or junior college	3329	60.5	1389	67.4
	4-year college other than this one	2304	41.9	910	44.1
	None	645	11.7	177	8.6
	Other	1290	23.4	348	16.9
Hours per 7-day week working for pay OFF CAMPUS	0 hours per week	1888	34.2	778	37.7
	1-5	194	3.5	80	3.9
	6-10	202	3.7	89	4.3
	11-15	165	3.0	64	3.1
	16-20	268	4.9	120	5.8
	21-25	190	3.4	92	4.5
	26-30	156	2.8	73	3.5
	More than 30	2422	43.9	751	36.4
	Missing	38	0.7	15	0.7
Hours per 7-day week spent providing care for dependents living with you	0 hours per week	1822	33.0	530	25.7
	1-5	520	9.4	196	9.5
	6-10	528	9.6	139	6.7
	11-15	429	7.8	111	5.4
	16-20	479	8.7	115	5.6
	21-25	224	4.1	76	3.7
	26-30	160	2.9	66	3.2
	More than 30	1330	24.1	817	39.6
	Missing	31	0.6	12	0.6
Self-reported grades up to now at this institution	A	1918	34.7	722	35
	A-	1081	19.6	409	19.8
	B+	977	17.7	339	16.4
	B	884	16	331	16.1
	B-	315	5.7	113	5.5
	C+	197	3.6	81	3.9
	C	111	2.0	41	2.0
	C- or lower	21	0.4	10	0.5
	Missing	19	0.3	16	0.8

Variable cont.		Freq. (N) Male	Perc. (%) Male	Freq. (N) Female	Perc. (%) Female
Highest level of education mother completed	Did not finish high school	767	13.9	331	16.1
	Graduated from high school	1957	35.4	724	35.1
	Attended college but did not complete degree	820	14.8	345	16.7
	Completed an associate's degree	606	11	240	11.6
	Completed a bachelor's degree	835	15.1	239	11.6
	Completed a master's degree	397	7.2	135	6.5
	Completed a doctoral degree	83	1.5	20	1.0
	Missing	58	1.1	28	1.4
Highest level of education father completed	Did not finish high school	907	16.4	422	20.5
	Graduated from high school	1896	34.3	741	35.9
	Attended college but did not complete degree	742	13.4	265	12.9
	Completed an associate's degree	432	7.8	165	8
	Completed a bachelor's degree	856	15.5	267	12.9
	Completed a master's degree	442	8	112	5.4
	Completed a doctoral degree	165	3.0	38	1.8
	Missing	83	1.5	52	2.5

Engagement Benchmarks Descriptive Statistics

Each student who takes the NSSE is given an average composite score in each of the five engagement benchmarks on a scale of 1-100. The higher the score, the greater level of engagement within that benchmark. Fourth year student veterans have three engagement benchmarks that have high means, implying higher levels of engagement. Supportive campus environment and academic challenge have means over 50, while active and collaborative learning has a mean of just under 50. This means that fourth year student veterans are engaging the most in activities associated with a supportive campus environment ($M = 59.83$), high

academic challenge (M = 57.45), and active and collaborative learning experiences (M = 49.15). While these three benchmarks show as having the highest mean responses, student-faculty interaction and enriching engagement experiences have means under 40. Table 9 shows the breakdown of means and standard deviations for the independent variables of engagement benchmarks. The means are shown for the senior veteran population not delineated based upon gender.

Table 9. Frequencies of engagement benchmarks of senior veterans

	Academic Challenge	Active and Collaborative Learning	Student-Faculty Interaction	Enriching Educational Experiences	Supportive Campus Environment
N	7631	7630	7609	7622	7615
Mean	57.45	49.15	38.59	34.40	59.83
St. Dev (SD)	14.69	18.41	19.94	17.59	20.11

The means of the senior veteran population fall into alignment with the national means ranges that were reported for NSSE during 2012 with the exception of enriching educational experiences, which was 2.0 lower than at lowest mean reported based upon institution type (NSSE, 2012a). The distribution of the 2012 engagement benchmark means by institution type can be found in Appendix II.

Comparing Men and Women Veterans

The study used an independent samples t-test to compare the means of the engagement benchmarks based on gender. The purpose of the t-test was to determine if there is a significant difference between male and female veterans on the engagement benchmarks. Gender in this study is treated as a binary, leading the independent samples t-test to be the choice to compare the means of the two independent groups (male and female).

Comparison of means by gender. Various conclusions can be drawn by looking at the mean differences in the dependent variable of understanding of self and the independent

variables of engagement benchmarks. The dependent variable is measured on a Likert scale of 1-4, with 4 being the highest score of "very much". The independent variables are measured through a composite score up to 100. There are statistically significant differences in the means between men and women student veterans in the dependent variable, understanding of self, $t(3717.45) = 5.73$, $p < .001$. Women veterans had a higher mean of their reported understanding of self than male veterans did. The NSSE benchmarks also all demonstrated significant differences by gender. Specifically, women rated level of academic challenge, $t(7578) = 5.77$, $p < .001$, enriching educational experiences, $t(7569) = 3.51$, $p < .001$, and supportive campus environment, $t(7562) = 3.51$, $p < .001$ higher than did male veterans. Table 9 shows the means, standard deviation, t-test value and significance level of men and women for the five benchmarks and the dependent variable of understanding of self. These results demonstrate that female veterans are distinct from their male veteran peers in terms of the outcome (sense of self) and engagement (5 of the benchmarks).

Table 10. Means and standard deviation of variables by gender

Variables	Gender	N	Mean	SD	T-test Value
Academic Challenge	Male	5520	56.86	14.86	5.77***
	Female	2060	59.05	14.14	
Active & Collaborative Learning	Male	5518	48.77	18.45	2.95**
	Female	2061	50.18	18.32	
Student Faculty Interaction	Male	5502	38.28	20.10	2.33*
	Female	2056	39.48	19.57	
Enriching Educational Experiences	Male	5514	33.97	17.69	3.51***
	Female	2057	35.57	17.25	
Supportive Campus Environment	Male	5507	59.36	19.98	3.51***
	Female	2057	61.19	20.36	
Understanding of Self	Male	5523	2.66	1.05	5.73***
	Female	2062	2.82	1.04	

Note. *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Relationship between Engagement and Self Understanding

Bivariate correlations were run to determine if there is a relationship between the five independent variables of engagement benchmarks and the dependent variable of self-reported understanding of self. The results indicated statistically significant correlations between self-reported understanding of self and all six independent variables ($p<0.01$). The strongest correlation among the variables was between understanding of self and supportive campus environment (R=0.466). Table 11 represents the bi-variate correlations results between the dependent and all six independent variables. All the correlations that were run were positively correlated.

Table 11. Correlations results

Measure	1	2	3	4	5	6
1. Gender						
2. Understanding of Self	0.065***					
3. Academic Challenge	0.066***	0.346***				
4. Active & Collaborative Learning	0.034**	0.229***	0.470***			
5. Student-Faculty Interaction	0.027*	0.287***	0.427***	0.577***		
6. Enriching Educational Experiences	0.040***	0.227***	0.373***	0.500***	0.537***	
7. Supportive Campus Environment	0.040***	0.466***	0.369***	0.295***	0.386***	0.281***

Note. *** p ≤ .001, ** p ≤ .01, * p ≤ .05

Predicting Self-Understanding for Student Veterans

This section discusses the results of the multiple linear regression analysis to determine whether the five engagement benchmarks as well as gender is predictive of whether veterans report an increase in understanding of self. The analysis was conducted in response to the following research questions:

1. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict veteran students' self-assessed contribution to their understanding of self?
2. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?
3. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

The analysis uses gender as well as the five engagement benchmarks as the independent variables. Model 1, Model 2 and Model 3 are multiple linear regression model that use blocks of predictor variables in sequence to examine the effects of the five engagement benchmarks, along with gender, on the increase in self-reported understanding of self in their fourth year. Model 1 includes all fourth-year veteran students, Model 2 includes male veterans only, and Model 3 includes female veterans only.

For each model, institution type, student reported grades and race/ethnicity were held constant. The independent variables of engagement benchmarks and gender were entered in as a block to determine if the compounded effect of the five engagement benchmarks can predict an increase in understanding of self. It should be noted that race/ethnicity was a statistically significant predictor of sense of self in all three regression models that were run. No further analysis was done into the significance of race/ethnicity in this study but is recommended in future research.

Addressing multicollinearity. When running a regression model, it is important to address the potential intercorrelation of the variables. One way to determine if multicollinearity exists is to review tolerance levels. Having a tolerance level of 0.4 or less can indicate multicollinearity. It is also possible to measure through the variable inflation factor (VIF). Having a VIF greater than 4.0 can indicate multicollinearity. The VIF results and diagnostic data can be found in chapter four (see Table 11, 12, 13). The collinearity diagnostics of the variables in this study did not show tolerance levels or VIF greater than the previously stated levels, meaning there was no reported intercorrelation of the variables within this study. The following sections discusses each research question and the results of the regression analysis.

Predictors of Veteran Students Self Understanding. Multiple linear regression was used to determine if engagement predicts senior veteran students' increased self-assessment of their understanding of self. The regression equation with the combined engagement benchmarks as predictors was significant R=.524, R^2=.274, F=187.461, $p<0.01$. Based on these results, race, age, institutional type, the engagement benchmarks and gender are strong predictors for self-assessment of increased understanding of self. The regression model shows that the younger a veteran is the more likely they are to have a higher sense of self. Veterans that attend a private institution is also predicted to have a higher sense of self. Additionally, veterans that identify as being Asian, Black, Latino, or Other are also more likely to have a higher sense of self. When looking at the engagement benchmarks, all but one of the benchmarks were significant predictors of increase in understanding of self. Academic challenge, student-faculty interaction, enriching educational experiences and supportive campus environment, along with gender, are significant predictors of increase in understanding of self at the $p<0.05$ level. Active and collaborative

learning is not a significant predictor. According to the results, the combined engagement benchmarks account for 27% of variance in understanding sense of self.

To determine the extent to which each engagement benchmark (level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences, and supportive campus environment) predict the variability in the dependent variable (specifically increase in understanding of self) the regression coefficients Beta are reported. The B (Standardized Beta coefficient) measures the strength of the effect of each independent variable upon the dependent variable (Creswell, 2005). To determine the independent variable with the strongest effect, the Beta value was used, regardless of the sign of the value.

When looking at the level of effect on the prediction of increase in understand of self, the results show that supportive campus environment has the strongest effect B=.352, with academic challenge having the second strongest effect with a B=.172. The Beta values of the other three engagement benchmarks were less than 0.06, meaning these engagement benchmarks have a weaker relationship with dependent variable of understanding of self than the other two engagement benchmarks. The Beta values for all of the variables input into the regression are listed in Table 12.

Table 12. Coefficients for final model-regression analysis for research question 1

	Standardized Coefficients		Collinearity Statistics	
Variables	Beta	Sig.	Tolerance	VIF
(Constant)		0.000		
Race/Ethnicity-Native	0.009	0.377	0.987	1.013
Race/Ethnicity-Asian	0.032	0.001	0.974	1.027
Race/Ethnicity-Black	0.07	0.000	0.85	1.176
Race/Ethnicity-Latino	0.029	0.005	0.946	1.057
Race/Ethnicity-Multiracial	0.012	0.221	0.975	1.025
Race/Ethnicity-Other/None	-0.047	0.000	0.941	1.063
Public/Private Classification	0.066	0.000	0.906	1.104
Grades	-0.011	0.278	0.905	1.105
Age	-0.048	0.000	0.873	1.146
Gender	0.024	0.017	0.968	1.033
Academic challenge	0.172	0.000	0.669	1.496
Enriching educational experiences	0.032	0.011	0.62	1.614
Supportive campus environment	0.352	0.000	0.746	1.341
Active & collaborative learning	-0.01	0.435	0.565	1.77
Student-faculty interaction	0.059	0.000	0.533	1.877

Table 13. Model summary showing changes in R^2

Model	R	R^2	Adjusted R^2	R^2 Change
1	.229a	0.053	0.051	0.053
2	.524b	0.274	0.273	0.222

In regression model 1, gender was a significant predictor of increase in understanding of self when holding race, age, grades, and institution type constant. With that determination, further analysis was completed by dividing the senior veteran sample by their uniquely identified gender and then performing two additional multiple linear regressions. The goal of this step was to determine which of the engagement benchmarks predict male veterans' increase in sense of self compared to the engagement benchmarks that predict the increase of sense of self in female veterans.

Predictors of Self Understanding for Male Veterans

Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?

A linear regression was run to determine which, if any, engagement benchmarks were significant predictors of increase in understanding of self for senior male veterans. The regression equation with the combined engagement benchmarks as predictors was significant ($R=.537$, $R^2=.288$, $F=156.505$, $p<0.01$) demonstrating that the engagement benchmarks were significant of increase in understanding of self. These results suggest that engagement is a strong predictor for increase in self-assessment of understanding of self for men. For male student veterans only three of the engagement benchmarks were significantly predictive of increase in understanding of self; academic challenge, student-faculty interaction and supportive campus environment. Active and collaborative learning and enriching educational experiences were not statistically significant predictors of increase in sense of self for male veterans. According to the results, the combined engagement benchmarks account for 29% of variance in understanding sense of self.

The results show that supportive campus environment has the strongest effect on the prediction of increase in understanding of self B=.356 with academic challenge having the second strongest effect with a B=.182. The third significant predictor, student-faculty interaction, had a B=.067. The Beta values of the other two engagement benchmarks were less than 0.03, meaning these engagement benchmarks have a weaker relationship with dependent variable of understanding of self than the other three engagement benchmarks. Being Black, Latino or other, along with attending private institutions, and being younger are predictors of sense of self for men. Based on Beta values, supportive campus environment is the best

predictor followed by academic challenge. When looking at the level of effect on the prediction of increase in understand of self, the Beta values for all of the variables input into the regression are listed in Table 14.

Table 14. Coefficients for final model-regression analysis for male veterans

	Standardized Coefficients		Collinearity Statistics	
Variables	Beta	Sig.	Tolerance	VIF
(Constant)		0.000		
Race/Ethnicity-Native	0.021	0.070	0.987	1.013
Race/Ethnicity-Asian	0.029	0.014	0.977	1.023
Race/Ethnicity-Black	0.076	0.000	0.89	1.124
Race/Ethnicity-Latino	0.032	0.006	0.951	1.052
Race/Ethnicity-Multiracial	0.007	0.543	0.981	1.02
Race/Ethnicity-Other/None	-0.047	0.000	0.945	1.058
Public/Private Classification	0.07	0.000	0.894	1.119
Grades	-0.021	0.088	0.898	1.114
Age	-0.049	0.000	0.87	1.149
Academic challenge	0.182	0.000	0.662	1.51
Enriching educational experiences	0.026	0.079	0.614	1.629
Supportive campus environment	0.356	0.000	0.725	1.38
Active & collaborative learning	-0.018	0.239	0.561	1.783
Student-faculty interaction	0.067	0.000	0.529	1.892

Table 15. Model summary showing changes in R^2

Model	R	R^2	Adjusted R^2	R^2 Change
1	.236a	0.056	0.054	0.056
2	.537b	0.288	0.286	0.232

Predictors of Self Understanding for Female Veterans

Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

A linear regression was utilized to determine if specific engagement benchmarks were likely to predict women veterans reported an increase in understanding of self. The regression

equation with the combined engagement benchmarks as predictors was significant (R=.482, R^2=.232, F=43.392, $p<0.01$), which shows that the engagement benchmarks were significant to an increase in understanding of self. While there are five engagement benchmarks, for female veterans only three engagement benchmarks were determined to be predictive of an increase in understanding of self: academic challenge, enriching educational experiences, and supportive campus environment. Active and collaborative learning and student-faculty interaction were not predictors for female veterans increase in understanding of self. According to the results, the combined engagement benchmarks account for 23% of variance in understanding sense of self.

When looking at the level of effect on the prediction of increase in understand of self, the results show that supportive campus environment continues to have the strongest effect B=.343, with academic challenge having the second strongest effect with a B=.139. The Beta values of the other three engagement benchmarks were less than 0.06, meaning these engagement benchmarks have a weaker relationship with dependent variable of understanding of self than the other two engagement benchmarks. For women, being Asian, Black, or other was a predictor of sense of self, along with being younger and attending a private institution. As with men, supportive campus environment was the best predictor of sense of self, followed by academic challenge. The Beta values for all of the variables input into the regression are listed in Table 16.

Table 16. Coefficients for final model-regression analysis for female veterans

	Standardized Coefficients		Collinearity Statistics	
Variables	Beta	Sig.	Tolerance	VIF
(Constant)		0.000		
Race/Ethnicity-Native	-0.026	0.183	0.982	1.018
Race/Ethnicity-Asian	0.042	0.036	0.962	1.04
Race/Ethnicity-Black	0.056	0.010	0.815	1.227
Race/Ethnicity-Latino	0.018	0.363	0.93	1.076
Race/Ethnicity-Multiracial	0.022	0.273	0.958	1.044
Race/Ethnicity-Other/None	-0.046	0.024	0.926	1.08
Public/Private Classification	0.057	0.005	0.934	1.071
Grades	0.009	0.677	0.911	1.097
Age	-0.045	0.032	0.872	1.147
Academic challenge	0.139	0.000	0.688	1.453
Enriching educational experiences	0.053	0.032	0.636	1.574
Supportive campus environment	0.343	0.000	0.798	1.252
Active & collaborative learning	0.011	0.658	0.572	1.747
Student-faculty interaction	0.032	0.225	0.543	1.842

Table 17. Model summary showing changes in R^2

Model	R	R^2	Adjusted R^2	R^2 Change
1	.203a	0.041	0.037	0.041
2	.482b	0.232	0.227	0.191

Summary

In this chapter the statistical analyses for this study were outlined, reviewed, and reported. When looking at the means of the engagement benchmarks, supportive campus environment (M = 59.83) and academic challenge (M = 57.45) had higher means than the other variables (active and collaborative learning (M = 49.15), student-faculty interaction (M = 38.59), and enriching educational experiences (M = 34.40), indicating that student veterans were more engaged in these two benchmarks than the other three. A statistical comparison of the means based on gender showed that women veterans reported higher levels of engagement in all the

benchmarks compared to their male veteran counterparts, with supportive campus environment, academic challenge, and enriching educational experiences being the most statically significant.

When looking at effect of engagement on prediction of sense of self the regressions showed that engagement was significantly related to the perceived change in sense of self. The initial model was significant, causing further models to be run looking at gender specifically. The additional regression models showed that for both men and women veterans academic challenge and supportive campus environment are significant predictors of sense of self, with supportive campus environment having the strongest effect on sense of self for both populations. However, there was a third engagement benchmark that differed for men and women. For male veterans, student-faculty interaction was a significant predictor, while for women, enriching educational experiences was a significant predictor. Active and collaborative learning was not significant in any regression model, regardless of gender.

The results indicate that there is a connection between engagement and prediction of sense of self. While some benchmarks have a greater contribution to student veterans than others, it was determined that gender does play a significant role in student veterans' engagement patterns and prediction of sense of self. Chapter Five will discuss the specific findings of this study, summarize the implications of the study, review study limitations, and outline recommended further research in this topic.

Chapter Five

Discussion

In this chapter I discuss the results of the research conducted and the potential implications on policy and future research. This chapter has four sections. The first section provides a summary of the research questions and purpose as discussed in chapter one. The second section explains the findings of this study in context to the literature that is relevant to this study. The third section addresses the study limitations and future research options within student veterans' engagement. The fourth and final section provides concluding thoughts.

Summary of research

The purpose of this study was to explore the role that the five engagement benchmarks defined by the National Survey of Student Engagement (NSSE) have upon veteran students' perception of self-identity, specifically female veterans. This study was guided by the following research questions:

1. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict veteran students' self-assessed contribution to their understanding of self?
2. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict male veteran students' self-assessed contribution to their understanding of self?
3. Controlling for relevant background characteristics, which of the NSSE educational benchmarks predict female veteran students' self-assessed contribution to their understanding of self?

I begin by interpreting the findings from the data analysis that were pertinent to the questions guiding this study. By analyzing the data from fourth year student veterans at four year US institutions who participated in the 2012 National Survey for Student Engagement (NSSE), this study found that engagement benchmarks are predictive of a student veterans' understanding of self, with as gender being a significant variable in both student veterans engagement behavior and predictive understanding of sense of self.

The results of this study show that male and female veterans are engaging in their campus community and their engagement in the university setting does influence their understanding of self. These results will be discussed along with the potential reasons for the findings in connection to the existing literature on student veterans. Finally, suggestions will be made for future research and the implications of the results of this study on college practices regarding student veterans currently.

Findings

The demographic breakdown of the sample aligns closely with the literature, including the fact that women are overrepresented in higher education but underrepresented in the military, with 25% of the fourth-year student veteran sample being female but only 15% of the general veteran population being female (Segal & Segal, 2004; Bellafaire, 2006). The descriptive statistics reveal that only 10% being under the age of 24, with only 3 individuals reporting being under the age of 19. This is in alignment with the literature, which states that the majority of veteran students are non-traditional, or over the age of 24, attending college after their terms of service have been completed, not during their service (Griffin & Gilbert, 2012; O'Herrin, 2011; Vacchi, 2012). Seventy-five percent of senior student veterans reported having transferred institutions during their academic. Additionally, 42% of fourth-year student veterans report

working more than 30 hours a week off campus, in addition to their academic pursuits. Finally, student veterans are divided in their care of dependents, with 31% not having dependents that live with them and 28% spending more than 30 hours a week caring for parents, children, or spouses that live with them.

Understanding of self is an outcome of the college experience as it demonstrates students' personal and social growth (Baxter Magolda, 2003; Quaye & Harper, 2014). By attaining a strong sense of self or identity development at the end of their college experience, students are able to demonstrate their competencies in a range of areas that include but are not limited to: mature personal and interpersonal relationships, self -awareness, and confidence in one's skills and abilities. They are able to provide contributions through effectively working with others or through their own independent pursuits because of their insight into themselves (Baxter Magolda, 2003). Determining if fourth year student veterans have met this outcome and gained an understanding of self through their college experience can help shape institutional practices that are being implemented for this population's engagement.

The findings of the regression show that four of the five engagement indicators predict a student veteran's ability to understand themselves. When not looking specifically at gender, fourth year student veterans are more likely to report a higher understanding of self when they are challenged academically, perceive that they have a supportive campus environment, determine their educational experiences to be enriching, and have higher levels of student-faculty interaction. Having an active and collaborative learning environment does not have a statistical significant relationship to a student veteran's reported level of self-understanding.

It is a significant finding that student veterans are engaging in the campus community while at college because earlier literature indicated that student veterans are not engaging within

the campus community due to their perception of campus environment being hostile (Rumann, Rivera, & Hernandez, 2011; Summerlott, Parker, & Green, 2009). For all three regression models the Beta value of supportive campus environment was significantly higher than the other benchmarks, meaning that it has a stronger magnitude of influence predicting veterans' sense of self. When looking at the environment that students have the opportunity to engage within, having a community where they feel safe and supported aligns with the literature that students' identity development can flourish in a supportive environment or flounder in a hostile environment (DiRamio & Jarvis, 2011a; Gerdes & Mallinckrodt, 1994; Persky & Oliver, 2010; Summerlot, Green, & Parker, 2009; Whiteman, Barry, Mroczek, & MacDermid Wadsworth, 2013). This perception comes from poor interactions with traditional aged student peers as well as institutional barriers that hinder a student veteran's transition to college. Student veterans have reported feeling isolated from their traditional aged peers due to differences in priorities while attending college. Institutional barriers reported can range from deadlines that are not adaptive to the uncertainty of leaving the military to challenges when getting transferable credit awarded (Griffin & Gilbert, 2012). This study, however, demonstrates that while student veterans may be reporting these obstacles within the college environment, they are not strong enough barriers to prevent the student from engaging within their campus environment.

This study also shows that the military experience is not completely formative of a veteran's identity or sense of self. Fourth year student veterans are reporting that their understanding of self is changing based upon their experience at their college or university, regardless of their gender. The implication of these findings are that the military experience is not enough of a formative experience to prevent a student veteran from strengthening their understanding of self through engaging in the college environment. This is not to imply that the

military is not a formative experience that affects a veteran's self-understanding, but that this experience does not prevent the effects of additional formative events, such as the college experience.

The findings of this study also show that gender does play a role in a student veteran's understanding of self. For male and female student veterans, three engagement benchmarks were found to be statistically significant. Two of the three benchmarks were the same for both student veteran populations, academic challenge and supportive campus environment. The third engagement benchmark is where the difference in gender is found when predicting a student veteran's understanding of self. For male veterans the third benchmark is student-faculty interaction and for female veterans the third benchmark is enriching educational experiences. These results show that while there are similarities in the student veteran experience regardless of gender, there are differences as well. Table 18 provides a descriptive comparison of male veterans and female veterans reported demographic information in 2012 to help contextualize who these students are and the external obligations that they experience.

Table 18. Descriptive comparison of male and female veterans, NSSE 2012

Male Veterans	**Female Veterans**
56.8% combat pay status	36.8% combat pay status
63% are white, non-Hispanic	52% are white, non-Hispanic
27.8% are students of color	40% are students of color
44% work more than 30 hours a week off campus	36% work more than 30 hours a week off campus
24% spend more than 30 hours a week caring for dependents	40% spend more than 30 hours a week caring for dependents

When looking specifically at fourth-year male student veterans, this study found that they are more likely to report a higher understanding of self when they are challenged academically, perceive that they have a supportive campus environment, and have higher levels of student-

faculty interaction. Having an active and collaborative learning environment or engaging in enriching educational experiences do not have a statistical significant impact on a male student veteran's higher level of self-understanding. These findings are in alignment with the literature surrounding male student veterans. Active and collaborative learning comes from strong relationships and interactions with peers. Research shows that student veterans can have trouble creating peer relationships with traditional aged, civilian peers (DiRamio, Ackerman, & Mitchell, 2008; Ryan et al., 2011; Vacchi, 2012; Wheeler, 2012). In addition to difficulty creating peer relationships, veterans come into college with the mindset from their military training that does not emphasize collaboration and active learning. Instead, the military structure depends upon obedience of subordinates to superior's orders, without collaboration in the development of the plan, just compliance with the predetermined orders (Barrett, 1996; McGurk, Cotting, Britt, & Adler, 2006). Additionally, Cole and Kim report that student veterans are less likely to engage within enriching educational experiences because they are prioritizing their emphasis on activities in college that are directly related to their academic success more than their social or personal growth (2013).

Compared to their male peers, fourth-year female student veterans are more likely to report a higher understanding of self when they are challenged academically, perceive that they have a supportive campus environment, and determine their educational experiences to be enriching. Having an active and collaborative learning environment or high amounts of student-faculty interaction do not have a statistical significance on a female student veteran's higher level of self-understanding. Part of these findings align with the literature surrounding female veterans, while some of the findings are not in alignment. For example, the literature states that veterans are less likely to engage in activities that are perceived as enriching educational

experiences (Cole & Kim, 2013). As addressed previously with male veterans, the literature states that student veterans are more likely to engage in academically purposeful activities over activities that are perceived as socially or personally enriching. Examples of enriching educational experiences, according to the NSSE, include participating in community service or volunteer work, internships, co-curricular activities, and dialogs with students that are "very different than you in terms of their religious beliefs, political opinions, or personal values" (NSSE, 2012, p. 1). These examples from NSSE are primarily comprised of experiences that occur outside of the academic classroom and are seen as enhancing an academic education but not always required as part of an academic program. This study contradicts the literature by showing that women veterans are willing to engage in these externally enriching experiences beyond their classroom academics and that by doing so, they can significantly affect their understanding of self.

For female veterans, student-faculty interaction is not significant in predicting self-understanding. There is limited research that exists surrounding female student veterans and their relationships with faculty on campus, however Baechtold & DeSawal note that women veterans have few gender specific role models accessible to them on the college campus (2009). This could provide possible insight into why student-faculty interaction is not a predictive engagement benchmark of sense of self for female veterans. Overall, the findings of this study align with the literature that exists stating that women veterans are a different population of student veterans than their male peers and therefore have different needs and experiences (Baechtold & DeSawal, 2009; DiRamio & Jarvis, 2011; O'Herrin, 2011).

Implications of study

This study was an exploratory study into the engagement patterns of student veterans, specifically looking at the role gender has on student veteran engagement. This section will highlight a summary of the findings and implications from this study.

Fourth-year veterans report that they are engaging within their college/university and they are performing well academically within it. This study shows that fourth year student veterans at four-year institutions are engaging within their academic community and are reporting that they are performing well academically within it. This is in contrast to much of the literature, which states that student veterans are not engaging within the college community because of barriers such as a negative campus climate and external obligations (Ackerman, DiRamio, & Mitchell, 2009; DiRamio, Ackerman, & Mitchell, 2008; Ryan et al., 2011; Wheeler, 2012). If a campus environment is perceived as ambivalent or hostile, then students, both civilian or veteran, are less likely to have a sense of belonging on the campus and therefore less likely to engage (Rumann, Rivera, & Hernandez, 2011; Summerlott, Parker, & Green, 2009). Student veterans in this study report a mean score of 59.83 out of 100 on the engagement benchmark of supportive campus environment, which was the highest mean of all five benchmarks. This means that fourth year student veterans are engaging the most in activities associated with a supportive campus environment, which implies that student veterans are not perceiving their campus climate as negative or that they are able to find specific areas within the campus to engage that may not be as influentially negative as the campus climate as a whole. For example, student veterans may be engaging in a veteran's center, which provides support to these students, but this may be the only space where they feel a supportive campus climate exists.

Many student veterans have additional obligations or responsibilities beyond their academics, such as full-time employment or caring for dependents (DiRamio & Jarvis, 2011). These obligations have been given as reasons why student veterans are not engaging within their campus community. However, student veterans are reporting that their grades at the institution up to the point in time when they completed the NSSE during their senior year as being primarily over a B average. For male veterans, 54% report having an A- or higher for the majority of their grades at their institution and 88% report having a B average or higher. Within female veterans, 88% also report having a B average or higher, with 55% reporting a grade average of an A- or higher. Being able to maintain high academic standards while balancing additional obligations outside of the institution demonstrate that student veterans are engaging academically with their institutions.

Women veterans report having a higher understanding of self than male veterans do in their fourth year of college. While all veterans have been through a formative experience during their military service that is intended to shape their understanding of self, for women veterans, the college experience is also more of a formative experience than it is for male veterans do. One potential explanation for this is that the military experience is not as formative on women's understanding of self as college is. The military is a male dominated environment that emphasizes the masculine, warrior personality (Dunivan, 1994; Snyder, 2003; Timmons, 1992; Wertsch, 1991). While women are aware of this when entering the military, the conflict that can occur of trying to align gender identity with the military can challenge women veterans and leave them unsure of their identity after separating from their service than their male counterparts (Dunivan, 1994; Snyder, 2003; Timmons, 1992; Wertsch, 1991). Therefore, women veterans may not find their military service as impactful on their self-identity as male veterans do or find

the experience to be as enjoyable as they originally thought it might be (Snyder, 2003; Stachowitsch, 2013). This could also partially explain why women veterans are less likely to self-identify as veterans after they leave the military (Baechtold & De Sawal, 2011).

To explore why female veterans report higher levels of self-understanding, research could be conducted through interviews with women veterans as they leave to service to see how much the military influenced their self-understanding. Follow-up interviews could be completed as these service members progress through their academic experience, looking at the ways in which they engage to determine if it is the college experience that is significantly influencing their self-understanding. Additionally, incoming fourth year women veterans to campus could be targeted for mentorship opportunities to help with their transition to civilian and student life, while helping students gain a greater understanding of themselves.

Women veterans engage more than male veterans, even with higher levels of external obligations. When looking at engagement specifically, there are five benchmarks identified by the National Survey of Student Engagement: academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences and supportive campus environment. The benchmarks are based on a composite score ranging from 1-100 based off of a series of questions within each benchmark. The means of all five engagement benchmarks are higher for women veterans compared to their male counterparts, with academic challenge (M=59.05, SD=14.14), enriching educational experiences (M=35.57, SD=17.25), and supportive campus environment (M=61.19, SD=20.36) having statistically significant differences between men and women. Two benchmarks, active & collaborative learning and student-faculty interaction, did not have statistically significant differences between the genders.

Women veterans are often an overlooked student population, often being seen as non-traditional students due to their lack of self-identification of veteran. This study shows that women veterans are engaging in the campus community, even while reporting higher levels of external commitments than their male peers. Forty percent of female veterans report spending more than 30 hours a week caring for dependents compared to 25% of male veterans reporting the same amount of time. Women veterans also report statistically higher means of engagement in all five engagement benchmarks, compared to their male counterparts. According to the literature, women veterans are more likely to be parents or spouses and have external obligations that pull their attention away from their academic experience, which aligns with the results of this study (Baechtold & De Sawal, 2011; DiRamio & Jarvis, 2011). Family obligations can be barriers for student engagement and completion, but this study demonstrates that women veterans are not being hindered by these barriers; they still report engaging more than their male peers.

College campuses can use this information as a foundation to evaluate their veteran student experience. First, if they can identify this population on their campus, they can assess the engagement experience of their female veterans, looking specifically at resources available for female veterans and what departments or organizations that they are choosing to engage within. For example, if women veterans are utilizing a campus veteran's center, it would be important to ensure that there are supports specifically designated for female veterans, not just the dependents or spouses of veterans, which are often women as well. If women veterans are not using a campus veterans center, then the campus should determine if and where this population is engaging and getting support and mentorship as well as why they aren't using the veterans center. This study shows that student veterans are engaging in the campus community

but does not explore the specific locations of this engagement on each campus. Continuing to support engagement of women veterans demonstrates an institutional support for female veteran students' success.

The second recommendation is to explore opportunities that currently exist on campus for veterans to determine areas of growth for their engagement. This can include programmatic evaluations of events targeted to veterans as well as to the general student population or investigating the idea of creating partnerships with faculty that increase intentional student-faculty interaction (DiRamio, Ackerman and Mitchell, 2008; Summerlot, Parker, & Green, 2009). Male veterans are the majority of student veterans, yet they do not report engaging as much as female veterans, even with fewer external obligations. Determining how veterans are currently engaging within a specific campus community and exploring if these engagement patterns are meeting the needs of student veterans might improve student veteran engagement.

Additional Study Findings

There has been limited research on student veterans, their engagement behaviors, and how those engagement behaviors are related to a student veteran's sense of self. This study expands the research completed in a previous study comparing student veterans to civilian students' engagement behaviors (Cole & Kim, 2013). The existing research surrounding female veterans and their behaviors on college campuses is limited and this study adds to the limited research on their engagement patterns. It also provides a statistical baseline for the external commitments that are experienced by women veterans, such as caregiving and the amount of work completed off campus, compared to their male veteran peers.

This study has highlighted some major implications that are worth reviewing. First, this study design provides both student affairs and academic affairs professionals who work with and

support student veterans the opportunity to look more in depth at their engagement patterns. This allows college professionals to look at what activities students are most or least engaged in. This study provides a foundational look into which of the five engagement benchmarks fourth year veteran students are currently utilizing. This study found that the two benchmarks that have the lowest means are enriching educational experiences (M=34.40) and student-faculty interaction (M=38.59). This information provides a baseline context for where student veterans are not engaging within higher education. Very little research has been done exploring where veteran students in general are engaging within the college environment, which prevents institutions from being able to either expand engagement opportunities where veterans are engaging or develop and improve engagement opportunities where they report that they have been less likely to engage. With funding sources and staffing often limited, it is important to ensure that resources on campuses are being utilized efficiently and purposefully and this information can provide institutions a starting point for determining how to utilize their campus resources for supporting student veterans.

The second additional finding of this study is to create a centralized resource for student veterans to be able to find support and resources. Literature suggests that a veterans center is the ideal type of campus resource to be developed, but there are different needs of veteran support based on how many veterans attend each different type of campus (DiRamio & Jarvis, 2011a; Moon & Schema, 2011; Summerlot, Green, & Parker, 2009). This study found that the majority of student veterans, 52%, attend Master's colleges and universities, which may not have as many resources as large research universities. Having a consistent person, department, or organization that can support veterans as they navigate their transition to higher education can help them feel supported by their campus. These people or departments can also support campus personnel

who desire to grow their understanding of the student veteran experience by hosting training sessions, such as the Green Zone training discussed previously (Nichols-Casebolt, 2012). This can improve engagement rates of these student veterans, which in turn will grow their sense of self as they progress through their academic career.

The third implication is targeted for institutions that already have a developed veterans resource center, person, or organization, which may already successfully engage with their student veteran population. This study highlighted that active and collaborative learning was not a statistically significant engagement benchmark for student veterans, regardless of gender. It is important to explore how veteran students perceive their active and collaborative learning experiences with their peers and work to enhance these opportunities. By improving this engagement benchmark, it may be possible for a campus to further enhance the college experience for veteran students. Also, student veterans have reported that they feel disconnected from their traditional aged peers (DiRamio, Ackerman, & Mitchell, 2008). Therefore, exploring this relationship on a specific campus to determine areas for growth and improvement may enhance and further complete the engagement experiences of student veterans on campuses that already deem themselves to be veteran friendly.

A final implication of this study is the highlighted need for further research about the engagement behaviors of female student veterans. Research states that female veterans are less likely than their male peers to identify themselves as veterans on campus, which makes it challenging for individual campuses to find information about this population (Baechtold & De Sawal, 2009). This study provides quantitative insight into female veterans as a collective population, which individual institutions are often unable to gather on their own campus. My research shows that female veterans report higher averages of their engagement on campus than

their male veteran peers in all the five engagement benchmarks measured by the NSSE. This highlights the need to continue to explore the engagement behaviors of this group as they are an understudied subgroup of student veterans that are challenging to identify. However, while this group is hard to identify, they are engaging more than their male peers and if professionals can continue to explore where on campus this population is engaging, then more support can be provided for this subgroup of student veterans.

Limitations

All studies have limitations, and with this study there were three primary limitations to highlight. One of the limitations that come with self-reported data is that students bring their own characteristics and experiences to the study. While attempts are made to control for these background elements of student, this research was limited by the confounding of these prior student variables. For example, having poor interactions with one specific student on campus may shape a student's perception of the campus environment as a whole, therefore the reported experience of that individual may be influenced by that singular interaction.

The second limitation of the study is associated with the age of the data. The data set that was used in this study was from 2012 and this research is being completed six years later. This study is unable to address how the veteran student experience has shifted or changed over the timespan since the data was originally collected. It is a limitation that requires one to recognize that the data available and utilized for this study is a snapshot in time. The NSSE is not intended to be a longitudinal study and therefore tracking the experience of the same veteran students over time is not possible. If this study was replicated with current students it is possible that the results may be different than they were with the 2012 student data set.

The final limitation of the study involves the singular data point of the dependent variable. The variable understanding of self is comprised of a single score. Having multiple measures to assess a student's understanding of self would have made the variable stronger within the study. The question addressing level of understanding of self that was asked on the 2012 survey was removed from the NSSE survey when the 2013 revision was completed. The single question delving into a student's introspection of self has not been an area of further investigation through quantitative measures on the NSSE and therefore can be a limitation of this study. The struggle to quantify how a students' identity has changed over time with a singular question contributed to the removal of the question from future NSSE studies. The removal does not negate the value of the topic, as having a strong sense of self and personal identity is a desired outcome of college. Recognizing how a student perceives their growth in their sense of self during college is significant in understanding if students recognize the personal transformation and growth that occurs while attending a college or university. This information, however, may be better acquired through qualitative analysis rather than through a large quantitative study.

Future research directions

While studies looking at the veteran student experience are becoming more readily available, there are still large gaps in the research associated with student veterans, but especially female student veterans. The NSSE began to include the category of student veteran on the survey as of 2010, but other large-scale surveys are just beginning to include that demographic option. There are four recommendations for further research that have come from this study.

The first recommendation is that additional research could be done with the NSSE survey starting in 2013 looking to see trends in student veteran engagement behaviors with the revised

survey. Much of the literature suggests that student veterans are not engaged in the campus environment because of their age, that they have feelings of isolation from their peers, and their external time obligations, however this study shows that student veterans are engaging academically and socially with their campus community. Based on my study, there appears to be a disconnect between what qualitative research says about student veterans not being engaged and the large scale quantitative study results that veterans are engaging on the campus. Using quantitative data from more recent years than this study examined may help to clarify the disconnection between these two types of research. It is important to determine if the results showing that veteran students are engaging are a trend or just an anomaly for the 2012 data set.

Additionally, continuing to look at the engagement of student veterans broken down by gender is a topic that future research can continue to explore. Large scale, quantitative data sets allow women to self-identify as a woman veteran when they may not be inclined to do so on their campus. Identifying women veterans on individual campuses can be a hindrance when gathering the personal experience perspective from students through qualitative research because they are less likely to self-identify as veteran and there may be a small population of veterans on individual campuses. It can be a challenge for individual campuses following up on the student experience on their campus. However, there are statistically significant differences in the engagement means of female versus male veterans, showing that female veterans report engaging in the college community more than their male peers are. Therefore, it is important to still attempt to learn more about female student veterans. It is recommended that further studies on this student group be large scale and allow for self-reporting to gain a large enough study sample. One topic that would be of benefit to explore is a study into the effectiveness of student veteran centers and organizations based upon gender split. Women veterans may be finding

support and engagement opportunities based upon their gender more than their veteran status. This prompts the question of which identity female veterans and their institutions prioritize, gender identity or military identity. Exploring identity further will allow for practitioners to look into ways of expanding veteran engagement of both men and women.

A third recommendation is to explore the role that race/ethnicity have in student veterans understanding of self and engagement behaviors. This study found that this variable is statistically significant predictor of fourth year student veterans understanding of self but did not explore the implications of this finding. Race/ethnicity are input variables that can play a role in a student's experience on the college campus (Astin, 1993). Therefore, it would be worthwhile to explore how this additional variable of student veterans influences their sense of belonging, engagement behaviors, and understanding of self through both large scale quantitative studies as well as qualitatively on individual campuses. Furthermore, exploration could be done longitudinally about the growth of sense of self and identity from first year to fourth year in college. NSSE data does not provide a longitudinal perspective of specific students and therefore a different data set would need to be utilized, but to track how student veterans' perception of self changes over time would provide further insight into when the growth is occurring and what participation may be prompting the introspective change of these students.

A final recommendation for future study is to use the data set from the Community College Survey for Student Engagement (CCSSE) and explore how student veterans, based upon gender, are engaging at the community college or technical college level. This demographic variable of veteran was added to the 2017 CCSSE survey, and therefore this exploration can be completed after this point in time. With such a large portion of student veterans pursuing their academic career at the community college, and engagement being recognized as a strong

predictor of success, an investigation into their engagement behaviors at this institution type is important to supporting their continued engagement if they pursue additional education at a four-year institution (Astin, 1993; Kuh, 2006; Tinto, 1993). Community colleges have different resources available to students, so also exploring resources available to student veterans at their campus to help them navigate the higher education system and become connected to their campus is also an area of exploration that could occur. All these recommendations are with the caveat that veteran populations are looked at by gender specifically to see if the engagement patterns differ for student veterans at the community college based on gender, as this study showed that they have at the four-year institutions.

Conclusion

This study explored fourth year student veterans understanding of self and its relationship to engagement, specifically seeking to determine if engagement behaviors can predict a student veteran's understanding of self. This study compared male and female student veterans, looking at their composite engagement scores in the five engagement benchmarks (academic challenge, active and collaborative learning, enriching educational experience, student-faculty interaction and campus environment), as well institutional characteristics and race as variables in predicting whether specific engagement benchmarks influence a fourth-year student veteran's understanding of self. The findings report that male veterans report lower levels of engagement than female veterans but are still engaged with statistical significance within the benchmarks of academic challenge, student-faculty interaction and supportive campus environment, which are all predictive of their understanding of self. The study also determined that different engagement benchmarks are predictive of a male student veteran's understanding of self than a female student veteran.

Female student veterans are a growing population on college campuses, yet little is known about their experiences. It is important for college and university faculty, staff, and administrators understand that this is a unique population of students and they interact with the campus in a different way than male student veterans do. By focusing on veteran engagement by gender, it is possible to see areas of growth where programmatic opportunities can be enhanced as well as understand why some experiences do not show the intended results. Recognizing how engagement can influence student veterans' understanding of self can build stronger relationships with these students during their academic experience and enhance the integration of veterans into the post-graduate community after graduation.

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Appendix I-Questions of NSSE that Comprise Composite Engagement Benchmarks

Level of Academic Challenge:	
Item Number	Description
1r	Worked harder than you thought you could to meet an instructor's standards or expectations
2b	Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
2c	Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
2d	Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
2e	Applying theories or concepts to practical problems or in new situations
3a	Number of assigned textbooks, books, or book-length packs of course readings
3c	Number of written papers or reports of 20 pages or more
3d	Number of written papers or reports between 5 and 19 pages
3e	Number of written papers or reports of fewer than 5 pages
9a	Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)
10a	Spending significant amounts of time studying and on academic work
Active and Collaborative Learning:	
Item Number	Description
1a	Asked questions in class or contributed to class discussions
1b	Made a class presentation
1g	Worked with other students on projects during class
1h	Worked with classmates outside of class to prepare class assignments
1j	Tutored or taught other students (paid or voluntary)
1k	Participated in a community-based project (e.g., service learning) as part of a regular course
1t	Discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)
Enriching Educational Experiences:	
Item Number	Description
1l	Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment
1u	Had serious conversations with students of a different race or ethnicity than your own

1v	Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
7a	Practicum, internship, field experience, co-op experience, or clinical assignment
7b	Community service or volunteer work
7c	Participate in a learning community or some other formal program where groups of students take two or more classes together
7e	Foreign language coursework
7f	Study abroad
7g	Independent study or self-designed major
7h	Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)
9d	Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)
10c	Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Supportive Campus Environment:	
Item Number	Description
8a	Relationships with other students
8b	Relationships with faculty members
8c	Relationships with administrative personnel and offices
10b	Providing the support you need to help you succeed academically
10d	Helping you cope with your non-academic responsibilities (work, family, etc.)
10e	Providing the support you need to thrive socially
Student-Faculty Interaction:	
Item Number	Description
1n	Discussed grades or assignments with an instructor
1o	Talked about career plans with a faculty member or advisor
1p	Discussed ideas from your readings or classes with faculty members outside of class
1q	Received prompt written or oral feedback from faculty on your academic performance
1s	Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
7d	Work on a research project with a faculty member outside of course or program requirements

Appendix II-2012 NSSE Engagement Benchmarks Means by Carnegie Classification

NSSE national survey of student engagement

NSSE 2012 U.S. Benchmark Descriptive Statistics[a] by Carnegie Classification

SENIORS

		Mean Statistics			95% Conf. Interval		Distribution Statistics (Percentile Scores)				
	N	Mean	SD	SEM	Lower	Upper	5	25	50	75	95
Level of Academic Challenge											
RU/VH	23,133	56.7	14.0	.09	56.5	56.9	33.1	47.4	57.1	66.6	78.9
RU/H	34,297	57.2	14.3	.08	57.1	57.4	32.9	47.5	57.7	67.3	79.8
DRU	16,668	61.7	14.8	.11	61.5	61.9	36.5	51.8	62.2	72.3	85.0
Master's L	46,482	58.0	14.3	.07	57.8	58.1	33.7	48.4	58.4	68.1	80.5
Master's M	12,588	58.5	14.3	.13	58.3	58.8	34.0	49.0	59.0	68.6	81.1
Master's S	4,970	59.5	14.1	.20	59.1	59.9	35.7	50.1	60.0	69.6	81.3
Bac/A&S	7,173	62.5	13.0	.15	62.2	62.8	40.5	54.1	63.2	71.9	82.5
Bac/Diverse	6,610	58.7	14.1	.17	58.3	59.0	34.9	49.0	59.4	68.8	80.4
NSSE 2012[b]	154,370	58.4	14.4	.04	58.3	58.4	34.1	48.8	58.9	68.5	81.1
Active and Collaborative Learning											
RU/VH	24,913	49.0	17.6	.11	48.8	49.2	23.8	38.1	47.6	61.9	81.0
RU/H	36,478	50.5	18.0	.09	50.3	50.7	23.8	38.1	47.6	61.9	81.0
DRU	17,486	53.8	17.1	.13	53.6	54.1	27.8	42.9	52.4	66.7	83.3
Master's L	48,882	53.0	17.9	.08	52.8	53.1	23.8	41.7	52.4	66.7	85.7
Master's M	13,191	53.7	17.8	.16	53.4	54.0	23.8	42.9	52.4	66.7	85.7
Master's S	5,214	53.7	18.5	.26	53.2	54.2	23.8	42.9	52.4	66.7	85.7
Bac/A&S	7,533	54.8	16.9	.19	54.4	55.2	28.6	42.9	52.4	66.7	83.3
Bac/Diverse	6,894	53.9	18.0	.22	53.4	54.3	23.8	42.9	52.4	66.7	85.7
NSSE 2012[b]	163,133	52.1	17.9	.04	52.0	52.2	23.8	38.1	52.4	61.9	81.0
Student-Faculty Interaction											
RU/VH	23,335	41.6	21.2	.14	41.3	41.8	11.1	27.8	38.9	55.6	83.3
RU/H	34,607	41.2	21.2	.11	41.0	41.4	11.1	27.8	38.9	55.6	83.3
DRU	16,771	38.9	20.1	.16	38.6	39.2	11.1	22.2	33.3	50.0	77.8
Master's L	46,816	43.7	21.5	.10	43.5	43.9	11.1	27.8	38.9	55.6	83.3
Master's M	12,648	44.6	21.5	.19	44.2	44.9	13.3	27.8	44.4	60.0	83.3
Master's S	4,980	46.8	21.6	.31	46.2	47.4	16.7	27.8	44.4	61.1	86.7
Bac/A&S	7,207	52.2	21.7	.26	51.6	52.7	22.2	33.3	50.0	66.7	91.7
Bac/Diverse	6,638	46.3	21.7	.27	45.7	46.8	16.7	27.8	44.4	61.1	86.7
NSSE 2012[b]	155,466	42.9	21.4	.05	42.8	43.0	11.1	27.8	38.9	55.6	83.3

[a] Results (including N) are weighted by gender, enrollment, and institution size.

[b] Includes institutions in "Other" Carnegie classifications.

1

NSSE national survey of student engagement

NSSE 2012 U.S. Benchmark Descriptive Statistics[a] by Carnegie Classification

SENIORS

		Mean Statistics			95% Conf. Interval		Distribution Statistics (Percentile Scores)				
	N	Mean	SD	SEM	Lower	Upper	5	25	50	75	95
Enriching Educational Experiences											
RU/VH	22,612	43.0	17.9	.12	42.7	43.2	13.9	30.2	42.9	55.6	73.0
RU/H	33,463	39.4	17.9	.10	39.2	39.6	11.1	26.2	38.9	51.2	70.2
DRU	16,226	36.4	18.7	.15	36.1	36.7	10.4	22.2	33.3	49.4	70.6
Master's L	45,460	39.6	18.4	.09	39.4	39.8	11.1	25.0	38.9	52.4	71.4
Master's M	12,293	39.8	18.4	.17	39.5	40.1	11.1	25.0	38.9	52.8	71.8
Master's S	4,859	42.3	19.4	.28	41.8	42.9	12.1	27.8	41.7	56.0	75.0
Bac/A&S	7,055	52.3	18.6	.22	51.9	52.7	19.4	40.1	54.0	65.5	81.3
Bac/Diverse	6,490	40.6	18.5	.23	40.2	41.1	12.3	27.3	39.4	53.3	72.6
NSSE 2012[b]	150,848	40.4	18.6	.05	40.3	40.5	11.1	26.2	38.9	53.2	72.2
Supportive Campus Environment											
RU/VH	22,257	58.1	18.9	.13	57.8	58.3	25.0	44.4	58.3	70.0	88.9
RU/H	32,791	58.6	19.7	.11	58.4	58.8	25.0	44.4	58.3	72.2	91.7
DRU	15,893	62.6	20.6	.16	62.3	62.9	27.8	50.0	63.9	77.8	100.0
Master's L	44,665	60.8	19.9	.09	60.6	61.0	27.8	47.2	61.1	75.0	94.4
Master's M	12,082	62.2	19.7	.18	61.9	62.6	27.8	50.0	63.9	75.0	94.4
Master's S	4,780	63.2	19.6	.28	62.6	63.7	30.0	50.0	63.9	77.8	96.7
Bac/A&S	6,956	64.9	18.2	.22	64.5	65.3	33.3	52.8	66.7	77.8	94.4
Bac/Diverse	6,388	62.6	19.6	.24	62.1	63.1	30.0	50.0	63.9	75.0	94.4
NSSE 2012[b]	148,180	60.5	19.8	.05	60.4	60.6	27.8	47.2	61.1	75.0	94.4

Carnegie Classifications

RU/VH	Research Universities (very high research activity)
RU/H	Research Universities (high research activity)
DRU	Doctoral/Research Universities
Master's L	Master's Colleges and Universities (larger programs)
Master's M	Master's Colleges and Universities (medium programs)
Master's S	Master's Colleges and Universities (smaller programs)
Bac/A&S	Baccalaureate Colleges-Arts & Sciences
Bac/Diverse	Baccalaureate Colleges-Diverse Fields

[a] Results (including N) are weighted by gender, enrollment, and institution size.

[b] Includes institutions in "Other" Carnegie classifications.

National Survey of Student Engagement 2012

The College Student Report

1 **In your experience at your institution during the current school year, about how often have you done each of the following? Mark your answers in the boxes. Examples: ☒ or ☑**

	Very often	Often	Some-times	Never
a. Asked questions in class or contributed to class discussions	☐	☐	☐	☐
b. Made a class presentation	☐	☐	☐	☐
c. Prepared two or more drafts of a paper or assignment before turning it in	☐	☐	☐	☐
d. Worked on a paper or project that required integrating ideas or information from various sources	☐	☐	☐	☐
e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	☐	☐	☐	☐
f. Come to class without completing readings or assignments	☐	☐	☐	☐
g. Worked with other students on projects **during class**	☐	☐	☐	☐
h. Worked with classmates **outside of class** to prepare class assignments	☐	☐	☐	☐
i. Put together ideas or concepts from different courses when completing assignments or during class discussions	☐	☐	☐	☐
j. Tutored or taught other students (paid or voluntary)	☐	☐	☐	☐
k. Participated in a community-based project (e.g., service learning) as part of a regular course	☐	☐	☐	☐
l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	☐	☐	☐	☐
m. Used e-mail to communicate with an instructor	☐	☐	☐	☐
n. Discussed grades or assignments with an instructor	☐	☐	☐	☐
o. Talked about career plans with a faculty member or advisor	☐	☐	☐	☐
p. Discussed ideas from your readings or classes with faculty members outside of class	☐	☐	☐	☐
q. Received prompt written or oral feedback from faculty on your academic performance	☐	☐	☐	☐
r. Worked harder than you thought you could to meet an instructor's standards or expectations	☐	☐	☐	☐
s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	☐	☐	☐	☐
t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	☐	☐	☐	☐
u. Had serious conversations with students of a different race or ethnicity than your own	☐	☐	☐	☐
v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	☐	☐	☐	☐

2 **During the current school year, how much has your coursework emphasized the following mental activities?**

	Very much	Quite a bit	Some	Very little
a. **Memorizing** facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	☐	☐	☐	☐
b. **Analyzing** the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components	☐	☐	☐	☐
c. **Synthesizing** and organizing ideas, information, or experiences into new, more complex interpretations and relationships	☐	☐	☐	☐
d. **Making judgments** about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions	☐	☐	☐	☐
e. **Applying** theories or concepts to practical problems or in new situations	☐	☐	☐	☐

3 **During the current *school year*, about how much reading and writing have you done?**

a. Number of assigned textbooks, books, or book-length packs of course readings

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

c. Number of written papers or reports of **20 pages or more**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

d. Number of written papers or reports **between 5 and 19 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

e. Number of written papers or reports of **fewer than 5 pages**

☐ None ☐ 1-4 ☐ 5-10 ☐ 11-20 ☐ More than 20

4 **In a *typical week*, how many homework problem sets do you complete?**

	None	1-2	3-4	5-6	More than 6
a. Number of problem sets that take you **more** than an hour to complete	☐	☐	☐	☐	☐
b. Number of problem sets that take you **less** than an hour to complete	☐	☐	☐	☐	☐

5 **Mark the box that best represents the extent to which your examinations during the current school year have challenged you to do your best work.**

Very little ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 Very much

6 **During the current school year, about how often have you done each of the following?**

	Very often	Often	Some-times	Never
a. Attended an art exhibit, play, dance, music, theater, or other performance	☐	☐	☐	☐
b. Exercised or participated in physical fitness activities	☐	☐	☐	☐
c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	☐	☐	☐	☐
d. Examined the strengths and weaknesses of your own views on a topic or issue	☐	☐	☐	☐
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	☐	☐	☐	☐
f. Learned something that changed the way you understand an issue or concept	☐	☐	☐	☐

7 **Which of the following have you done or do you plan to do before you graduate from your institution?**

	Done	Plan to do	Do not plan to do	Have not decided
a. Practicum, internship, field experience, co-op experience, or clinical assignment	☐	☐	☐	☐
b. Community service or volunteer work	☐	☐	☐	☐
c. Participate in a learning community or some other formal program where groups of students take two or more classes together	☐	☐	☐	☐
d. Work on a research project with a faculty member outside of course or program requirements	☐	☐	☐	☐
e. Foreign language coursework	☐	☐	☐	☐
f. Study abroad	☐	☐	☐	☐
g. Independent study or self-designed major	☐	☐	☐	☐
h. Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	☐	☐	☐	☐

8 **Mark the box that best represents the quality of your relationships with people at your institution.**

a. Relationships with **other students**

Unfriendly, Unsupportive, Sense of alienation ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 Friendly, Supportive, Sense of belonging

b. Relationships with **faculty members**

Unavailable, Unhelpful, Unsympathetic ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 Available, Helpful, Sympathetic

c. Relationships with **administrative personnel and offices**

Unhelpful, Inconsiderate, Rigid ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 Helpful, Considerate, Flexible

9 About how many hours do you spend in a typical 7-day week doing each of the following?

a. Preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other academic activities)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

b. Working for pay **on campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

c. Working for pay **off campus**

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

d. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

e. Relaxing and socializing (watching TV, partying, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

f. Providing care for dependents living with you (parents, children, spouse, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

g. Commuting to class (driving, walking, etc.)

☐ 0 ☐ 1-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21-25 ☐ 26-30 ☐ More than 30

Hours per week

10 To what extent does your institution emphasize each of the following?

	Very much	Quite a bit	Some	Very little
a. Spending significant amounts of time studying and on academic work	☐	☐	☐	☐
b. Providing the support you need to help you succeed academically	☐	☐	☐	☐
c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	☐	☐	☐	☐
d. Helping you cope with your non-academic responsibilities (work, family, etc.)	☐	☐	☐	☐
e. Providing the support you need to thrive socially	☐	☐	☐	☐
f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	☐	☐	☐	☐
g. Using computers in academic work	☐	☐	☐	☐

11 To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

	Very much	Quite a bit	Some	Very little
a. Acquiring a broad general education	☐	☐	☐	☐
b. Acquiring job or work-related knowledge and skills	☐	☐	☐	☐
c. Writing clearly and effectively	☐	☐	☐	☐
d. Speaking clearly and effectively	☐	☐	☐	☐
e. Thinking critically and analytically	☐	☐	☐	☐
f. Analyzing quantitative problems	☐	☐	☐	☐
g. Using computing and information technology	☐	☐	☐	☐
h. Working effectively with others	☐	☐	☐	☐
i. Voting in local, state, or national elections	☐	☐	☐	☐
j. Learning effectively on your own	☐	☐	☐	☐
k. Understanding yourself	☐	☐	☐	☐
l. Understanding people of other racial and ethnic backgrounds	☐	☐	☐	☐
m. Solving complex real-world problems	☐	☐	☐	☐
n. Developing a personal code of values and ethics	☐	☐	☐	☐
o. Contributing to the welfare of your community	☐	☐	☐	☐
p. Developing a deepened sense of spirituality	☐	☐	☐	☐

12 Overall, how would you evaluate the quality of academic advising you have received at your institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

13 How would you evaluate your entire educational experience at this institution?

☐ Excellent
☐ Good
☐ Fair
☐ Poor

14 If you could start over again, would you go to the *same institution* you are now attending?

☐ Definitely yes
☐ Probably yes
☐ Probably no
☐ Definitely no

15 **Write in your year of birth:** 19 ☐☐

16 **Your sex:**
☐ Male ☐ Female

17 **Are you an international student or foreign national?**
☐ Yes ☐ No

18 **What is your racial or ethnic identification? (Mark only one.)**
☐ American Indian or other Native American
☐ Asian, Asian American, or Pacific Islander
☐ Black or African American
☐ White (non-Hispanic)
☐ Mexican or Mexican American
☐ Puerto Rican
☐ Other Hispanic or Latino
☐ Multiracial
☐ Other
☐ I prefer not to respond

19 **What is your current classification in college?**
☐ Freshman/first-year ☐ Senior
☐ Sophomore ☐ Unclassified
☐ Junior

20 **Did you begin college at your current institution or elsewhere?**
☐ Started here ☐ Started elsewhere

21 **Since graduating from high school, which of the following types of schools have you attended other than the one you are attending now? (Mark all that apply.)**
☐ Vocational or technical school
☐ Community or junior college
☐ 4-year college other than this one
☐ None
☐ Other

22 **Thinking about this current academic term, how would you characterize your enrollment?**
☐ Full-time ☐ Less than full-time

23 **Are you a member of a social fraternity or sorority?**
☐ Yes ☐ No

24 **Are you a student-athlete on a team sponsored by your institution's athletics department?**
☐ Yes ☐ No (Go to question 25.)

On what team(s) are you an athlete (e.g., football, swimming)? Please answer below:

25 **What have most of your grades been up to now at this institution?**
☐ A ☐ B+ ☐ C+
☐ A- ☐ B ☐ C
☐ B- ☐ C- or lower

26 **Which of the following best describes where you are living now while attending college?**
☐ Dormitory or other campus housing (not fraternity/sorority house)
☐ Residence (house, apartment, etc.) within **walking distance** of the institution
☐ Residence (house, apartment, etc.) within **driving distance** of the institution
☐ Fraternity or sorority house
☐ None of the above

27 **What is the highest level of education that your parent(s) completed? (Mark one box per column.)**

Father	Mother	
☐	☐	Did not finish high school
☐	☐	Graduated from high school
☐	☐	Attended college but did not complete degree
☐	☐	Completed an associate's degree (A.A., A.S., etc.)
☐	☐	Completed a bachelor's degree (B.A., B.S., etc.)
☐	☐	Completed a master's degree (M.A., M.S., etc.)
☐	☐	Completed a doctoral degree (Ph.D., J.D., M.D., etc.)

28 **Please print your major(s) or your expected major(s).**

a. Primary major (Print only one.):

b. If applicable, second major (not minor, concentration, etc.):

THANKS FOR SHARING YOUR RESPONSES!

After completing the survey, please put it in the enclosed postage-paid envelope and deposit it in any U.S. Postal Service mailbox. Questions or comments? Contact the National Survey of Student Engagement, Indiana University, 1900 East Tenth Street, Suite 419, Bloomington IN 47406-7512 or nsse@indiana.edu or www.nsse.iub.edu.

Appendix IV- Research Approval

THE UNIVERSITY OF KANSAS
Research

APPROVAL OF PROTOCOL

April 18, 2017

Casey Fraites-Chapes
Fraitesc@ku.edu

Dear Casey Fraites-Chapes:

On 4/18/2017, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	Soldier, Civilian, Student: Understanding the influence of engagement on self-identity of college student veterans
Investigator:	Casey Fraites-Chapes
IRB ID:	STUDY00140880
Funding:	None
Grant ID:	None
Documents Reviewed:	• Human Subjects Protocol, • Requested Variables from NSSE 2012

The IRB approved the study on 4/18/2017.

1. Notify HSCL about any new investigators not named in original application. Note that new investigators must take the online tutorial at https://rgs.drupal.ku.edu/human_subjects_compliance_training.
2. Any injury to a subject because of the research procedure must be reported immediately.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity.

Continuing review is not required for this project, however you are required to report any significant changes to the protocol prior to altering the project.

Please note university data security and handling requirements for your project:
https://documents.ku.edu/policies/IT/DataClassificationandHandlingProceduresGuide.htm

You must use the final, watermarked version of the consent form, available under the "Documents" tab in eCompliance.

Sincerely,

Stephanie Dyson Elms, MPA
IRB Administrator, KU Lawrence Campus

Human Research Protection Program
Youngberg Hall | 2385 Irving Hill Rd | Lawrence, KS 66045 | (785) 864-7429 | research.ku.edu/hrpp

Appendix V- NSSE Data Sharing Contract

CENTER for POSTSECONDARY RESEARCH

Indiana University
Data Sharing Agreement

This Indiana University Center for Postsecondary Research Data Sharing Agreement ("Agreement") defines the parameters for data sharing from the National Survey of Student Engagement ("NSSE") between the Research Institution(s) and its Authorized Researchers named below and the Trustees of Indiana University on behalf of the Indiana University Center for Postsecondary Research ("IUCPR"). The terms below are intended to reflect and comply with the existing agreements between NSSE and the institutions that participate in the survey program. Under these participation agreements, NSSE may:

> *"... make data, in which individual institutions or students cannot be identified, available to researchers interested in studying the undergraduate experience... NSSE results specific to each institution and identified as such will not be made public except by mutual agreement between NSSE and the institution."*

RESEARCHERS

The following researchers ("Authorized Researchers") of **University of Kansas** ("Research Institution") may make use of NSSE data pursuant to the terms of this Agreement:

Casey Fraites-Chapes, University of Kansas, Fraitesc@ku.edu

FACULTY SPONSOR (Required for students)

Dr. Susan Twombly, Chairperson-Professor, University of Kansas, stwombly@ku.edu, 785-864-9721

PROJECT TITLE or TOPIC ("Project")

Self-Understanding Among Veterans

DATA DESCRIPTION

Under this Agreement, IUCPR will provide the researchers a data file delimited in the following ways ("NSSE Data File"):

Data Source(s):

NSSE 2012

Variables:

All core NSSE survey items; institution-provided variables (sex, race/ethnicity, enrollment status, class level); institution-level variables (Carnegie type, control, enrollment size in categories). All student identifiers will be removed. Institution identifiers will be replaced with unique non-identifiable codes.

Cases:

The entire 2012 population of student veterans from US institutions, inclusive of all carnegie institution types, plus a 20% random selection of non-veterans.

CENTER for POSTSECONDARY RESEARCH

Indiana University
Data Sharing Agreement

PARAMETERS FOR DATA SHARING:

1. IUCPR will provide a single copy of the NSSE Data File solely for non-commercial research by the Authorized Researchers.

2. The NSSE Data File will exclude the Unit ID code from Integrated Postsecondary Educational Data System (IPEDS), any other unique school or student identifiers, and any variables that IUCPR determines reasonably may permit the identification of a participating school or student.

3. The Authorized Researchers will not attempt, privately or publicly, to associate elements of the NSSE Data File with the individual institutions or individual students participating in the NSSE, nor will they share the data with anyone else who might do so.

4. In all publications or presentations of data obtained through this agreement, the Authorized Researchers agree to include the following citation:

   "NSSE data were used with permission from The Indiana University Center for Postsecondary Research."

5. The Authorized Researchers agree to provide to IUCPR a copy of all reports, presentations, analyses, or other materials in which the data given under this Agreement are presented, discussed, or analyzed.

6. The data should be encrypted when not in use by the above researcher and should be destroyed once the Project has been completed. If the researcher needs the data for any longer period than that which is necessary for completing the Project, the researcher is required to ask for an extension. Using the data for other purposes besides completing the Project must be approved by the Director for the Center for Postsecondary Research at Indiana University at Bloomington.

7. Other parameters: **None**

8. The IUCPR of Indiana University may, by written notification to the Authorized Researchers and the Research Institution(s), terminate this Agreement if it determines, in its sole discretion, that either the Authorized Researchers or the Research Institution(s) have breached the terms of this Agreement. In the event that this Agreement is terminated, the Authorized Researchers and Research Institution(s) shall return the originals and all copies of the NSSE Data File to the IUCPR, and securely destroy all NSSE Data File elements contained in any analyses or other materials created or maintained by Authorized Researchers, within ten (10) days of the receipt of the termination notice.

9. IU will not be liable to the Research Institution(s) for any direct, consequential, or other damages, related to the use of the NSSE Data File or any other information delivered by Indiana University or IUCPR in accordance with this Agreement. The Research Institution(s) shall defend, indemnify, and hold harmless The Trustees of Indiana University, their officers, employees, and agents, with respect to any and all claims, causes of action, losses, and liabilities, of any kind whatsoever, arising directly or indirectly from the Authorized Researchers' use of the NSSE Data File. Research Institution's obligations to defend, indemnify, and hold harmless The Trustees of Indiana University, their officers, employees, and agents hereunder shall be limited in substance by statutes and constitutional provisions designed to protect the exposure and liability of Research Institution as an instrumentality of the State of Kansas (e.g. actions and conditions as to which Research Institution is immunized by the Kansas Tort Claims Act [K.S.A. 75-6101 et seq]), so that its liability to indemnify and hold harmless shall not exceed what might have been its liability to a claimant if sued directly by the claimant in the State of Kansas and all appropriate defenses had been raised by the Research Institution.

CENTER for POSTSECONDARY RESEARCH

Indiana University Data Sharing Agreement

FEES

In exchange for access to and use of the NSSE Data File, **Ms. Casey Fraites-Chapes of University of Kansas** agrees to pay Indiana University the sum of **$500** by check upon execution of this Agreement. IUCPR will send an invoice detailing payment instructions.

SIGNATURES

The undersigned hereby consent to the terms of this Agreement and confirm that they have all necessary authority to enter into this Agreement.

For The Trustees of Indiana University:

Amy L. Hoover

Name: Amy L. Hoover
Title: Contract Officer
Indiana University Office of Research Administration

06/13/2017
Date

Alexander C. McCormick, Director, National Survey of Student Engagement

Date

For the Research Institution(s):

Alicia Reed

Name: Alicia M. Reed
Title: Interim Director, Research Administration
Authorized Institutional Official from University of Kansas

5/23/17
Date

Acknowledgment of Authorized Researcher(s) (including Faculty Sponsor if applicable):

Casey Fraites-Chapes

Casey Fraites-Chapes, University of Kansas (Fraitesc@ku.edu)

5-23-17
Date

Susan B. Twombly

Dr. Susan Twombly, Chairperson-Professor, University of Kansas, stwombly@ku.edu

5/23/17
Date

L Wolf-Wendel

Dr. Lisa Wolf-Wendel, Associate Dean/Professor, University of Kansas, lwolf@ku.edu,

5/23/17
Date

Dr. Eugene Parker, Assistant Professor, University of Kansas, eparker@ku.edu

5/23/17
Date